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The conquest of the moon :



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Frontispiece. "Great chief! great chief! we will always remain with thee."

THE

# CONQUEST OF THE MOON 

## A STORY OF THE BAYOUDA

BY

## A. LAURIE

NEW EDITION.

WITH ILLUSTRATIONS

## L.ONDON

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PREFACE.

IT is a bold thing to attempt a subject that has already attracted such writers as Cyrano, Swift, Edgar Poe, Jules Verne, and many others ; but let them throw the first stone who, amid the radiance of August nights, have never been tempted by the problem to form dreams of their own.

The Author.

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## THE CONQUEST OF THE MOON.

## CHAPTER I.

AT SUAKIM.
DINNER was over: the company had passed into the drawing-room, where large bay windows stood wide open to the motionless expanse of the Red Sea, now slowly darkening in the twilight of a lovely evening in January.
M. Kersain, the French Consul at Suakim, was entertaining that night M. Norbert Mauny, a young astronomer who had been particularly recommended to him by the Minister of Foreign Affairs. The official letter intimated that the Consul would do well to put himself at the entire disposal of M. Mauny, and to assist him as far as possible in the scientific mission that, in a confidential postscript, was stated to be of a secret nature. No one, therefore, had been asked to meet the young savant, with the exception of the lieutenant of the ship, Guyon, who in Suakim waters was in command of the Lévrier, the French despatch-boat.

The Consul was a widower. The honours of the table had been gracefully done by his daughter Gertrude as mistress of the house ; and now seated at the piano, she was softly playing a nocturne of Chopin.

The weather was soft and mild. The dinner had been most joyous, its official character notwithstanding, for the
quartette, albeit strangers heretofore, had conversed together with the delight and friendly recognition that is so customary among Parisians wheresover they meet. The last stories of the Boulevards were laughed over: mutual friends were discovered at every turn. When coffee came, the talk became more intimate, and the Consul thought it time to put a question that excited his curiosity. "You have come to the Soudan on a scientific mission," said he to Norbert Mauny. "Is it indiscreet to inquire what kind of mission it is ?"
"Not at all," replied the young man smiling, "and your question is only natural, Monsieur le Consul. But will you be offended if I say that I cannot gratify your legitimate curiosity, because the business that has brought me to Africa must remain an absolute secret if possible?"
"Secret even from Captain Guyon and me?" replied M. Kersain, looking slightly astonished. "There is nothing political, I presume, about your mission? The minister's letter stated that you were an astronomer belonging to the Paris Observatory, and, if I am rightly informed, one of the most distinguished among our young savants."
" I am in point of fact an astronomer, and it is in this capacity that I have come to Suakim. There is nothing political about my mission. But it is an unknown one hitherto in this country, and for this and many other complicated reasons, I think it best not to divulge its nature, not even to the representative of France. This was the understanding with which the Minister of Foreign Affairs recommended me to you. And, moreover, not only is my mission not political ; it is purely of a private nature. The expenses are borne by English capitalists. The colleagues who came with me in the Dover Castle are none of them French. We have come to Africa to make an ingenious experiment. The sole favour I have asked from our Government is its moral support in case of need. This was promised me by the Minister of Foreign Affairs, who assured me also that I should always find him ready to assist me in the task I have undertaken."

Whilst Norbert Mauny gave these explanations, the French Consul and the naval lieutenant observed him narrowly.

He was a tall, slender, dark young man of about twentysix or thirty. Refined broad brow, clear bright eyes, aquiline nose surmounting a well-defined mouth, firmly moulded chin; one and all were instinct with frank bravery and goodness. He wore his evening black coat with the ease of good breeding mingled with the careless nonchalance usual in men of action. His voice was deep and melodious ; speech short, and to the point. Serious without pedantry, a hidden gaiety peeping out in every deed and look, he was a fine type of a Frenchman-one might say of a great Frenchman, so evident and undeniable was the superiority of his nature.

Satisfied with the result of his scrutiny, the Consul courteously hastened to change the conversation.
M. Kersain was a distinguished diplomatist of the old school, who would have attained to the greatest eminence in his profession had he not been kept by the shores of the Red Sea by his unfortunate passion for Nubian antiquities and the need of a warm climate for the health of his daughter. Gertrude was twenty years of age. Frail and bending like a reed, with a milk-white complexion, and a profusion of magnificent golden hair that almost weighed her down, it was easy to see that her life hung upon a thread. Her mother, indeed, had died young of consumption, to the life-long grief of M. Kersain ; and he was in constant dread lest the daughter might develop the same too well-known symptoms of decay. From time to time a slight cough shook the lovely but delicate frame, whilst an alarming flush coloured the white cheek. Gertrude paid no attention to these signs; she was gentle and charming, the idol of all who approached her, and she was full of hope, as is so often the case with these perfect beings, "too pure for this world."

But her father could not be blind to the alarming symptoms ; and the doctors were on the alert to warn him that a less dry climate might prove fatal to Gertrude.

For the sake of his daughter, therefore, he had remained at Suakim, which had been the scene of his début in the consular career. Every moment that he could spare was devoted to her, and to watch over the health of his child was the sole aim of his life. Her happiness was his constant thought, and he could refuse her nothing. Unselfish and modest by nature, the sweet and well-trained girl had but few caprices, but these were gratified without hesitation by her adoring father. The reticence of the young astronomer had, in despite of himself and his host, lent an air of restraint to the conversation. It was, therefore, a relief to all when a fresh guest appeared, in the person of a florid, sprightly man of about fifty-Dr. Briet, the uncle of Mdlle. Kersain, who had travelled to Suakim on purpose to take care of the health of his niece. Not an evening passed without his appearance at the Consulate, and his entry now was the signal for a joyous welcome.
"Good evening, uncle !" cried Gertrude, flying into his arms.
"Allow me, dear docteur, to present you to our compatriot, M. Norbert Mauny. . . . M. le docteur Briet," added the Consul, introducing the two men to each other.

They bowed, and the jovial doctor said simply at once, and with great cordiality,-
"I knew of the arrival of M. Maunay, and of course he was already known to me by repute. No one can read the Records of the Academy of Science without learning that M. Norbert Mauny has done magnificent work with the Spectrum analysis, and that he discovered two telescopic planets, Priscilla and . . . what the deuce do you call the other one ?"
"She is not yet christened, except with a number," laughingly replied the young astronomer. "So many planets are discevered in these days," added he modestly, "that it is difficult to find names for them all."
"Call it Gertrudia," said Captain Guyon, looking at Mdlle. Kersain.
"Oh! Captain! . . . You don't mean that!" exclaimed Gertrude.
"But, on the contrary, it is an excellent idea," replied Norbert; "and I shall be only too delighted to profit by it, if your father and yourself will give me permission. A definite name is much wanted by these little stars, to distinguish them clearly from the others. Gertrudia will be perfection. . . . I adopt Gertrudia! "
"Oh, papa, what fun! ... I shall have a star to myself!" exclaimed the enchanted child. "But you will point it out to me, will you not, sir, that I may know it when I see it?"
" Most willingly . . . when it is visible ! . . . in seven or eight months' time, if the weather allows."
"One cannot see it every night, then ?" asked Gertrude, slightly disappointed.
"Oh! no. . . . If so, it would long ago have been discovered and named. . . . But we have found out enough about its habits now not to let it go by without an au revoir."
"It is not every one who can offer such a bouquet as that to a lady," . . . said the docteur. "And, doubtless," he continued, all unwitting of indiscretion, . . . "you are engaged on an astronomical mission ?".
"Not precisely!" . . . replied Norbert, who could not help laughing this time. "I see," he added, on perceiving the astonishment of the doctor, "that it is not easy to keep a secret, especially when one is resolved to tell no lies in its defence. I might have said that I wanted the clear sky of the Soudan for the purpose of taking fresh interplanetary observations. . . . I prefer to tell you a part of the truth. . . . I have come here to study the ways and means of a somewhat chimerical undertaking, or, at least, such it will appear in the eyes of many when they hear the programme. Now, unfortunately, at the University I have already got the character of being a hare-brained individual. I am therefore condemned necessarily to silence about my plan until it succeeds-under pain of being looked upon and perhaps treated as a lunatic. . . . In these circumstances you will understand my having solemnly resolved to say nothing about it to any one. If I succeed every one will
see it! . . . If not, there is nothing to gain by being laughed at, and having perhaps fresh obstacles added to those that already confront me. . . . The first step will be the establishment of a scientific station on the tableland of Tehbali, in the desert of Bayouda."
"A scientific station in the desert of Bayouda!" cried the doctor. "What a time to choose for such a thing! Think you, forsooth, that our friends the Soudanese will let you settle it all at your ease? . . . I wouldn't give a hundred pence for the skin of any European who tried even to reach the Upper Nile. And you think to cross it, and get to the Darfour frontier ? . . . Allow me to tell you that this is simple folly."
"Did I not say that you would call me a lunatic at the first word!" coldly replied Norbert. "You are witnesses, all of you, that I was right!"
"I' faith, I'll not retract!" answered Docteur Briet. "To try and penetrate to the heart of the Soudan is quite as hazardous as it would be to go among the Touaregs. Have you forgotten the fate of all who have ventured south of Tripoli-Dournaux-Dupéré in 1874, my brave, good friend Colonel Flatters in 1881, Captain Masson, Captain Dianons, Docteur Guiard, the engineers Roche, Béringer, and so many before their time?"
"I have forgotten nothing," said the young astronomer, with perfect sang froid. "But the geological and sidereal conditions that I need are only to be found together in the desert of Bayouda, on the table-land of Tehbali. I must seek them there."
"Beware lest you find something quite different!" exclaimed the Consul significantly. "Believe an old African -there is only one way now to go to Darfour : with a regiment of Algerian sharpshooters and a convoy of three thousand camels."
"I see myself, indeed, at the head of so many sharpshooters and camels!" gaily answered the young savant. "I have done my twenty-eight days twice, just like any one else, but I have never got beyond the grade of corporal, nor commanded more than four men. I must
content myself with my servant Virgil, who happens to be an old African sharpshooter, and with a good guide, if I can find him. At all events, the Soudanese will see that I come in friendly guise."
"A giaour? Not they! Go and ask them what they think about it, and then come and tell me, if you have a tongue left to speak with!"
"You are certainly bent upon making me think that I am going to embark on something superhuman. Are these Soudanese, then, such fearfully wicked people ?"
"They have no intention of letting any European come out alive from among them-that is all I can tell you. . . . And there are two or three million of them at the least, perfectly disciplined, blindly obedient to their chiefs, armed to the teeth, with immense resources at their disposal. . . . Have you never heard of the Mahdi ?"
"The Mahdi? . . . That kind of Mussulman illuminati, who organized a revolt on the Bahr-el-Ghazel, two or three hundred leagues off ?"
"Just so. Well, Monsieur Mauny, this Mahdi, if we do not take care, will eat us all before the year is out. He will drive us from Suakim, from Khartoum, and from Assouan. Perhaps he will drive us out of Cairo, and even Alexandria!"
"But have not troops been sent from Egypt to oppose him ?"
"He will make but a mouthful of them, if he does not even force them to serve under him. I know what I am talking about, I tell you! . . . We are beginning a sacred war. In six months, or at most a year, the Mahdi will be at Khartoum!"
"A year; that is a long time! Perhaps I shall not want so long to realize my project."

The docteur contented himself with throwing up his arms to heaven.
"So," said the lieutenant of the ship to Norbert Mauny, "you persist in running into the lion's mouth ?"
"Yes, captain."
"Well! you are plucky for an astronomer!"

Every one had listened to this discussion with great interest, but Mdlle. Kersain more than all. Whilst Norbert Mauny described his plan, and Docteur Briet set forth his objections, she remained silent, her large eyes looking from one to the other; but every now and then she grew pale with the thought of the dangers to which the young savant was going to expose himself, whilst she was full of admiration for the tranquil courage with which he accepted the programme. Her expressive and sensitive countenance showed so visibly the emotions that agitated her, that her father, feeling anxious, made a sign to the docteur to change the conversation. He rang at the same time for tea, which was brought by a little Arab servant, and dispensed as usual by Gertrude. Drawing Norbert Mauny aside, the Consul led him out on the terrace, where, taking him by the arm, he said,-
"Do you know I have serious scruples about lending my countenance to such an enterprise as yours ?"
"What am I to do ?" replied the young savant, very simply. "I am not alone! Considerable capital is embarked in the undertaking. A superintending committee accompany me on the Dover Castle which brought us here with all our requisites. And I repeat, what I am about to undertake is only possible in the Soudan. Besides the fact that, to my certain knowledge, the indispensable physical conditions are found together only there, the very state of existing anarchy is one of the reasons that have confirmed me; for this frees us from tiresome negotiations and authorizations that we should perhaps never have got from an established Government. We shall work in a region that is dependent on no one, since all nominal authority even is at an end. These are precious advantages, and it would be folly not to profit by them."
"But how do you propose to overcome the notorious and implacable hostility of Arab tribes who will bar your passage ?"
"In the simplest way in the world. By converting them
into friendly allies."
"And you expect to succeed in so doing ?"
"I hope so."
" I cannot agree with your sanguine expectations; but if you are really determined, you must at least take all possible precautions. We have here at Suakim a man who may be useful to you from his knowledge of the customs and men of the country. His name is MabroukiSpeke. He is the old negro-guide who accompanied successively Burton, Speke, Livingstone, and Gordon. Shall I put you into communication with him ?"
"By all means. I am only too glad, of course, to increase my chances of success. . . . It will take some time to organize the expedition, on account of the heaviness of the baggage and requisite material. Doubtless I shall often have to come to you for help before I leave Suakim."
" Make all possible use of me," replied the Consul, with a cordial grip of the hand, as they returned to the drawingroom.

Gertrude came forward at once with a cup of tea, which she offered Norbert.
"It is settled, then, that you go ?" she asked, as she handed him a piece of sugar.

The ingenuous expression of sadness on her countenance went to the heart of the young man, and he felt, to his surprise, grieved, as if about to leave a well-loved sister or one of childhood's friends. Suppressing the sigh that rose to his lips, he smiled in reply,-
"I go, but not directly. The preparations will take two or three weeks, and so I do not bid adieu yet to the Consulate of France."

Gertrude said nothing. Her eyes were filled with tears. She bowed slightly, and stepped on to the terrace to gaze on the myriad stars that irradiated the heavens.

## CHAPTER II.

## FIVE O'CLOCK TEA ON THE RED SEA.

"I Like M. Mauny very much, certainly," said the French Consul next morning, as he took his seat opposite his daughter at the breakfast-table. "The doctor declares that he is a most distinguished savant. He has good manners ; besides, he is evidently energetic, and in addition, as a set-off, he is a good-looking young fellow."
"In a word," answered Gertrude, with a slightly embarrassed laugh, " he has quite made a conquest of you, dear father, and perhaps," she continued, with a touch of malice, "he will be more pleased than surprised when he knows it." . . .
"That is the way with all young girls!" exclaimed the Consul. "They are always ready to pick out the faults in their sincerest admirers. For I could see that he was smitten with you. . . . But, of course," he continued, good-humouredly pretending to take her at her word, "if you do not like him, it is as well that I should know it at once. He has just sent me a line inviting us both to go over the Dover Castle this evening ; but I can go alone, and make some excuse for you!" . . .
"An excuse for not going over the Dover Castle? You are laughing at me, dear papa," . . . she answered quickly. "Rather do I want an excuse to see it? . . . I am most grateful to M. Mauny for inviting me. And, to tell the truth, I meant to give him a hint last night at dinner when I spoke about the tapering masts that have been a three days' wonder to the world of Suakim ; but I feared it was but a waste of breath, and that he would never descend from the transcendental heights of astronomy to notice, still less to gratify, the curiosity of such an insignificant individual as myself."
"You were mistaken, you see," said M. Kersain. "Well then, it is settled. Be ready to go out at sunset, about five o'clock, and a boat shall be waiting at the quay."

So saying, the Consul buried his head in the newspapers,
which he generally read during breakfast. Gertrude left the room a few minutes afterwards to make her preparations, chatting the while with her little Arab maid Fatima. She was waiting for her father, gloves buttoned, at least an hour before he came to fetch her.

Suakim is by no means a large town, and in three minutes the father and daughter reached the quay. They saw Norbert Mauny at once. He seemed to be awaiting them in company with a stranger, and he now came up with great eagerness.
"We scarcely dared to hope that Mdlle. Kersain would do us the favour of accompanying you," he said, pressing both the hands held out to him. "Let me introduce you to my friend Sir Bucephalus Coghill ; he is a member of our expedition, and, with myself, will have much pleasure in doing the honours of the Dover Castle." . . .

Sir Bucephalus Coghill, Baronet, was a tall, slender, elegant young man of twenty-six years of age. His florid complexion bore evidence to his Anglo-Saxon nationality, but he appeared fitted rather for the hunting-field than for a scientific expedition. He had, however, been a great traveller, and he was soon engaged in lively conversation with the Consul and his daughter.

Norbert, though, was quite taken up with what was passing at the distance of a few paces in a group composed of several Arabs, three Europeans, and an old negro habited in white linen acting as interpreter to the rest.
"It is Mabrouki Speke! .. . You have got hold of him already," said M. Kersain, observing the direction in which the young astronomer was looking.
"Yes, he is trying to negotiate on our account with some camel-drivers, but he does not seem to be making much way with them."

Only in the East, indeed, would it be possible to hear such a medley of cries, groans, and curses as proceeded from the aforesaid group, conspicuous among whom was a great bearded, hook-nosed, turbaned fellow, who vowed he could not accept a centime less, swearing by Allah and the infernal powers that by the head of his father he would be
reduced to die of hunger! But all this eloquence had little effect on the Europeans. One of them now left the group, and, coming up to Norbert, said abruptly, with a very Teutonic accent,-
"These dogs ask ten piastres a camel, and will not give in." . . .
"Allow me to introduce you to M. Ignaz Vogel, one of the commissioners of our expedition," said Norbert Mauny, in a cold tone.

The guide was not, indeed, very presentable-squinting, under-sized, covered with rings and trinkets, his miserable little body clothed in a large-checked costume, with the tiniest of hats sat on a great shock head of hair, his hybrid language, accompanied with a sinister smile, made up a whole that filled one with disgust and suspicion.
"Permit me to leave you for a minute for an important matter," said Norbert to his guests.

They bowed assent.
"Ten piastres ?" he resumed in an aside to Vogel. "And how many camels?"
"Twenty-five, at ten piastres a head. I think it exorbitant."
"No. It is nothing, on the contrary. Have you considered the distance they will have to traverse? . . . Would that we had five hundred camels at that price instead of twenty-five. . . . Engage them at once, but be careful not to let the men see that we have such need of them."
" Very well," replied the other ; "I will manage it."
Then, turning to the Consul and his daughter, he added-
" Monsieur and mademoiselle, I will not say good-bye, but au revoir. I shall have the pleasure of seeing you presently on board." So saying, with a parting salute in the shape of a scrape of the foot, he went off to his camels.
"A strange associate, truly, for Monsieur Mauny and that correct young Englishman," observed M. Kersain and Gertrude to each other.

But the pleasure of embarking in a canoe soon effaced
the disagreeable image of Ignaz Vogel. Six sturdy sailors, rowing well together, brought them in two minutes to the stairs of the Dover Castle, whose captain awaited them with a courteous greeting.

They duly admired in extenso and in detail the cleanliness, discipline, and good order that reigned everywhere, and asked, as is usual, a thousand explanations that were all forgotten the next minute. They were told the name of every little bit of rope, and initiated into all the customary rites of the occasion. At length, when everything had been lauded to the skies, came the chief rite of all, the luncheon, which the two young men had ordered to be laid out aft under an awning.

The table was covered with fruit, ices, and pastry, embedded in flowers ; and, to the great surprise of M. Kersain and his daughter, there was a profusion of superb plate and rare china. The Consul could not refrain from complimenting M. Norbert.
"All these splendours are due to Sir Bucephalus, and not to me," laughingly replied the young savant. I am not in the habit, I assure you, of always eating off silver plate or drinking tea out of porcelain cups; but the three other commissioners and myself take our meals with Sir Bucephalus in common, and this is the Asiatic luxury he shares with us."
"No luxury could be too great to honour our present guests," said Sir Bucephalus. "But I must beg them to believe that I could very well dispense with it, only my domestic tyrant will not allow me to have my own way."
"Sir Bucephalus," explained Norbert, "possesses a model valet, who has grown up in the shadow of the ancestral manor, and would deem it a crime not to regulate his master's life in accordance with the laws of etiquette."
"He knows very well, at least, how to decorate a table," said Gertrude; "these pomegranate blossoms have a charming effect."

Tyrrel Smith, the valet in question, coming up at this juncture with the champagne, the conversation was changed,
and before very long joyous peals of laughter resounded over the calm waters of the Red Sea.

In the midst of their cordiality Ignaz Vogel made his appearance, escorted by the two individuals they had seen with him on the quay. Norbert at once introduced them as-
"M. Peter Gryphins . . . . M. Costerus Wagner, commissioners of the expedition."

The three new-comers seated themselves at table without ceremony.
"More commissioners," thought Gertrude. "They look rather like servants out for a holiday. M. Mauny has certainly been unfortunate in his choice of commissioners."
"Have you succeeded in settling your business without being outrageously cheated by those cunning rascals?" asked the Consul. He was by no means fascinated by the three oddities whom he was addressing, but he tried to be amiable out of compliment to his host.
"Damn it !" elegantly replied Peter Gryphins, who might have come straight from a stable, judging from his scanty waistcoat, his gaitered legs, paper collar, and bookmaker's visage. "We have scarcely nobbled thirty-five camels, instead of the fifty that were promised us."
"These Arabs make a boast of fooling us," added Ignaz Vogel. "I am very doubtful whether we shall succeed in getting the necessary means of transport."
"Do you need, then, such an enormous number of men and beasts?" asked the Consul.
" We want at least eight hundred camels," replied Norbert, " and a proportionate number of guides. It is a question of disembarking all our material and conveying it to the table-land of Tehbali-that is to say, about eight hundred leagues off, across the desert. . . . It is no easy matter, I know. But the thing will be feasible if only the bad faith of these people does not raise insurmountable obstacles."
"Why did you not tell me sooner of your difficulties?" cried the Consul. "I could have saved you many useless comings and goings. . . . You must know that in any great undertaking there is nothing to be done throughout
the Suakim territory, unless you treat directly with the real lord of the land?"
"And who is he?" asked Norbert.
"He is a local 'saint,' Sidi-Ben-Kamsa, Mogaddem of Rhadameh, and head of the powerful tribe of the Cherofas. . . . Not only will no camels be forthcoming without his permission, but if you had had the imprudence to bring any from Egypt or Syria, you would assuredly have been attacked and robbed in the desert."
"Are you speaking seriously?" exclaimed the young astronomer.
"Most seriously. You must indubitably win over this high personage to your enterprise, or give it up."
"And how can a humble wretch like me manage to gain the protection of a holy mogaddem? It seems more difficult than to get hold of those slippery camels," said Norbert.
"Good. . . . Have you forgotten that a golden key will open many doors?"
"How? Would the saint be amenable to mercenary sentiments ?"
"Between ourselves, I believe he knows no other. Sidi-Ben-Kamsa is one of the most singular phenomena of this country. It is to him that recourse must be had for everything and on every occasion. He gives audience every morning at sunrise, like the Commander of the Faithful in the 'Thousand and One Nights.' His receptions are much sought after, and it would be supremely inconvenient to go there empty-handed."
"No matter," gaily rejoined Norbert. "We are quite prepared to go with full hands. Is it far from here ?"
"About two days', or rather two nights', march."
"We should not do ill to go and visit this holy personage to-morrow. What say you, Coghill?"
"I say that the excursion would be a real pleasure party if M. and Mdlle. Kersain will come, too," answered the baronet stolidly.
"Mdlle. Kersain!" . . . "My daughter!" . . . simultaneously cried Norbert and the Consul.
"Oh, a thousand thanks, monsieur!" exclaimed Gertrude, quite delighted. "You could not have proposed anything that would please me better. If my father will only say 'Yes,' I undertake to show you that a woman can travel in the desert without being in any one's way. . . . Oh! dear papa, do consent! . . . You know that for a long while I have been dying to see this famous mogaddem. . . . I promise to keep well, darling papa, and not to tire myself."
"Very well, very well," smilingly answered her father, who had no wish to refuse his daughter the promised pleasure, and was only fearful of intruding. "But are you quite sure that we shall not be in the way, Monsieur Mauny ?"
"Oh! Consul, has not Sir Bucephalus told you that if you come the journey will be turned into a party of pleasure? But it will be fearfully dull if we are not to have your company after having hoped for it."
"It is very gracious of you to make me so welcome. It is settled, then. For a long while past my brother-in-law, Doctor Briet, has been urging us to make this strange excursion with him. He shall join us if you consent, and I make no doubt but that he will be ready to start as soon as you like."

The baronet and Norbert bowed their assent. As to the three "commissioners," no one noticed their presence, or seemed to consider them as forming part of the expedition. But the one whom Norbert had called Costerus Wagner, and who, from his large flapping hat and long trailing yellow hair, might very well pose as a savant at large, suddenly said :-
"Do you think it necessary for Vogel, Gryphins, and myself to make this journey ?"
"By no means," answered Norbert, most significantly; " and if you prefer to remain here and superintend the landing of the material-"
"The landing is the captain's affair," interrupted Peter Gryphins, in a sullen tone. ", And the statutes are precise ; we ought not to leave you." . . .
"The statutes having been drawn up at my suggestion, there is no need to quote them to me," replied Norbert,
with an irony in his voice that escaped neither the Consul nor the "commissioners." The latter made a visible grimace.
"I think our best plan is to entrust Mabrouki Speke with all the preparations," said Norbert to the Consul ; "and if it is agreeable to you we might start to-morrow."
"To-morrow night," replied M. Kersain ; "for, as you doubtless know, one can travel only at night and morning in this climate. . . . Shall we meet at six o'clock at the Consulate ?"
"Yes, at six o'clock."
"How pleased I am!" cried Gertrude, delighted. "Thank you, dear father! Thanks a thousand times, messieurs ! . . . Sir Bucephalus, it was you who proposed that I should be of the party. I thank you, then, more especially!"

Norbert had some trouble to dissemble his pique at this expression of gratitude, natural and unaffected though it was.
". . . There is that fellow, Coghill," he thought, "already on the best of terms with Mdlle. Kersain! . . . I shall never know how to get on with her; I seem lacking in the art or gift, whichever it is. . . . Perhaps I have been so long taken up with telescopes that I have forgotten how to talk to ladies." . . .
M. Kersain perceived his abstracted air, and rose to take leave of his hosts, who, however, insisted on accompanying him and his daughter to the very door of the Consulate.

Returning to the Dover Castle, they met Mabrouki Speke on the quay, and gave him their orders. The old guide knew his work. He listened attentively to their instructions, and promised that all should be ready for the start at the appointed hour on the morrow.

## CHAPTER III.

## IN THE NUBIAN DESERT.

The route taken by the little caravan led by Mabrouki Speke lies first due westward on the road to Berber, then veers to the south towards the oasis of Rhadameh. After leaving Suakim the path leads over a mountainous and broken country. But after some hours' march the landscape changes to sterile downs stretching away out of sight to the horizon. The road is simply a pathway traced by the passage of caravans, and the simoons would cover it over with sand were it not for the sun-dried parchment-like skeletons of horses or camels to be met with here and there, and serving as landmarks to show where the path was once. This is the aspect of the Nubian desert between the Red Sea and the Nile, extending over about ino leagues. It differs, as will be seen, from the Sahara, properly so-called, but perhaps it is even more lonely, more monotonous and desolate.

After due deliberation the three commissioners, Costerus Wagner, Ignaz Vogel, and Peter Gryphins, had, to the relief of Norbert, decided on remaining in Suakim. He, however, could not help suspecting some sinister design to lie at the root of their decision. The expedition consisted therefore only of M. Kersain, his daughter, Doctor Briet, the baronet, and Norbert. They were all on horseback, as also were the attendants. Gertrude had donned a long robe of white linen, and wore on her head a canvas helmet and blue veil that became her admirably. Her little servant, Fatima, was in Arab costume. They headed the cavalcade, escorted by the four cavaliers, and were alternately led or followed by Mabrouki Speke.

The rear-guard was highly picturesque. It consisted of seven camels, laden with provisions, drinking-water, and camping necessaries.

Five Arab drivers, perched on camel backs between the water-skins and the bales, showed a glimpse of bronzed faces in the midst of snowy-flowing draperies. Then came


Led by Mabrouki-Speke.
two individuals of highly different aspect: Tyrrel Smith, the valet of Sir Bucephalus, philosophically enduring the hard jerky trot of his camel, and a great jolly darkskinned fellow, clothed in grey linen, with an Algerian chechiâ on his head, who was none other than Virgil, the soldier-servant of M. Mauny.

We term him a soldier-servant because he so termed himself whenever he was questioned on the point; and also because, until now, he had only served under commissioned French officers. He was an Algerian sharpshooter. The brother of M. Mauny, himself a captain in the African army, had, on learning the departure of the latter for the Soudan, hastened to secure for him the services of Virgil, who would, as he knew, prove to be a most valuable help and companion. The good fellow made no pretensions indeed to the dignity of valet, cook, coachman, or groom. A stranger to the most elementary principles of etiquette, and even to the usages of civilized life, he was nothing but a soldier's servant-a most unique specimen though; for he was full of resources, and was indeed a Jack-of-alltrades.

Just now he was vastly amused at the doleful expression on the clean-shaven countenance of Tyrrel.
"Well, friend!" he said, tapping him on the shoulder as their camels went along, cheek by jowl ; "say: wouldn't you prefer a first-class carriage ?"

Such familiarity was not at all to the taste of M. Tyrrel Smith, who, moreover, had but an imperfect knowledge of French. He contented himself therefore with making a disdainful grimace, intended to express the immeasurable distance that in his mind existed between the butler of a baronet and the servant of a simple astronomer.

But Virgil was not going to be beaten.
He did not even notice the grand airs of Tyrrel, and if he had, he was too simple-minded to have understood them. Taking off the artistically-carved gourd that hung round his neck by a red cord, he courteously offered it to Tyrrel, saying with a broad grin,-
"Taste that, comrade, and tell me what you think of it!"

This act of politeness touched Tyrrel Smith. He had a special weakness for French cognac, and without waiting to be pressed, he put the neck of the gourd to his thin lips and took a good long draught. This sacrifice to Bacchus unloosed his tongue, and enabled it once more to speak French.
"A quelle heure . . . nous . . . arriver . . . hotel?" he asked, with a visible attempt at graciousness.
"At the hotel!" exclaimed Virgil. "You don't mean to say that you expect hotels to spring up in the Nubian desert like mushrooms? We shall probably halt about midnight for three or four hours' rest, and after a slight snack, start off again.
"But . . . the gentlemen . . . and the ladies ?" said Tyrrel.
" Well, the gentleman and the ladies will, like us, take a nap under their rugs, and after eating a morsel, will get into the saddle again."
" Je disapprouvais . . . hautement . . . pour . . . Sir Bucephalus!"

Emotion would not let him proceed further ; his professional gorge rose at the idea of his master being subjected to such a rough-and-ready style of living, and he was seized with an attack of ill-humour that lasted until at midnight a halt was called at the place fixed by Mabrouki, the meeting of the routes to Rhadameh and Berber.

They had all bravely weathered this first stage. In the twinkling of an eye, the Arab servants had lighted torches, posted picquets, pitched tents, and spread out the provisions on carpets, around which the hungry traveller; seated themselves with appetites sharpened by six hours' travelling.

Tyrrel Smith noted with dismay the total absence of plate. He solemnly entered his protest against such a violation of sacred etiquette by standing bolt upright all supper-time, motionless and sullen, with white gloves and cravat, behind his master.

At the end of the collation, Gertrude and Fatima retired into one of the tents, whilst the three Frenchmen and the
baronet took the other; and all gave themselves up to repose. It did not last long. They had not slept an hour even, before they were awakened by the sound of voices and the stamping of feet. Fatima crept out of the tent to reconnoitre.
"It is a Berber tribe going to the Mogaddem of Rhadameh. There are a hundred at least, and all on donkeys."
"I must see them!" exclaimed Gertrude, hastening to rise and join her father and the other travellers, who were already on the qui-vive.

The Berbers were, in fact, all mounted on diminutive donkeys, which they led with only a halter. They had women with them, and about a dozen children, who were absolutely naked, and whose first thought at the sight of a pool of water near the encampment was to rush into it and splash about.

The new comers soon gave evidence that they also meant to pitch their camp. But they were not long about it, and soon absolute silence once more reigned in the desert.

Suddenly an unexpected tumult aroused the weary travellers.
"What is that?" exclaimed Gertrude, not a little alarmed.
"Only a donkey braying," replied Fatima.
It was indeed a young ass testifying its delight in the enjoyment of fresh water and food, in much deeper and more prolonged notes than are emitted by its European brethren. The elegant solo lasted quite three minutes.
" At last!" exclaimed M. Kersain, when it had finished. "It is time!"

But another ass took up the song in a higher key.
"Good heavens!" groaned Fatima, " now they are all going to tune up!"...
"What do you mean?"
"Oh, mistress, I know them well. When one begins, they all follow in succession. . . . There are more than sixty of them. They will go on for at least three hours."
"Are you sure?"
"You will hear ! . . . I know them well," replied Fatima piteously.
"Then we must not expect to get any sleep ?"
"No, indeed!"
"Well, that is pleasant news!"
The same sort of colloquy took place probably in the other tents, judging from the angry voices proceeding therefrom. And all the while the monstrous serenade continued, being taken up by a third, a fourth, up to the fiftieth ass in succession. Tyrrel Smith could stand it no longer, "Will you be quiet, you horrid beasts, who will not even let a gentleman sleep ?" . . . Seizing a stick close at hand, he rushed to the asses and began beating them as hard as he could.

They all at once set up a perfect chorus of frenzied braying, which so enraged Tyrrell Smith that, losing all control over himself, he laid about him more violently that ever, regardless of the vociferations and screams of the indignant Berbers.

Virgil now came up in his turn.
"Stop!" he cried. "You will only excite them still more. I know how to silence them ; come with me."

Calling the other servants, he gave them their respective instructions, and in an instant, to the general surprise, the horrible din gave place to a profound silence.

His plan was very simple. Knowing that donkeys cannot bray heartily unless their tails are in the air, he thought of forcing them to lower these appendages by grouping them round the provision bales, and then fastening their tails to the cords of the bales. The donkeys found this argument unanswerable. After a good laugh at Virgil's plan, every one settled once more to sleep.

At four o'clock in the morning, Mabrouki's rattle gave notice that it was time to start. The travellers were coming out of their tents one by one, when they were startled by the sound of Virgil's voice pitched in a high key.
"Dogs of Arabs! Gaol birds! You shall pay for this!"
"What is the matter, Virgil ?" exclaimed M. Mauny, running up.
"The matter, . . . why, those dogs of black devils have decamped with all our provisions!"
"You don't say so!"
"Look, then! They have carried off everything, . . . meat, preserves, biscuits, . . . even the water-skins ! . . . and that must be out of sheer mischief, for they had plenty of water without taking ours!"
"We must set to work to pursue them," said Norbert "they can't have gone far!"
"What do you think about it, Mabrouki?" said M Kersain.
"I think it will be useless ; . . . supposing we do overtake them, they will have already hidden the provisions in the sand, and as soon as they see us they will hasten to disperse."
"Well, what are we to do, then ? . . . we are not going to die of hunger!"
"There is one thing to be done."
"What?"
"Go to the Zaonia of Daïs, and buy some provisions."
"Is it far?"
"Three leagues off towards the east. But the road is too bad for the horses."
"In that case what is the alternative ?"
"If you like, I will go there with two men and two camels, and will rejoin you at the first halt. You have only to keep due south ;-one of the Arabs will guide you."

This plan was approved and put into execution at once. Mabrouki left whilst the tents were being struck.

At this moment appeared a strange being, whom it was difficult to recognize for the correct and irreproachable Tyrrell Smith. It was himself, though, but in a deplorable condition; he was wet, muddy, and covered with dung from head to foot. He was greeted by a general peal of laughter. "I can't understand it," he said. "It must have rained in torrents. Look what a state I awoke in."
"This is getting serious!" said Virgil, as if seized with a new idea.

He ran to the tent of the model servant, and found it flooded. The ground was nothing but a vast puddle, in the midst of which floated the leather skins, once full, but now quite empty.
"This is another trick of those dogs of Berbers," said Virgil. "It is their return for the cudgelling you gave their young donkeys."
"Let us be thankful," said the doctor, "that they have not taken the water-skins." He was of a very optimistic temperment. "At least," he continued, "we can fill them from the pool yonder." . . .
"Yes," said Virgil, "fill them with nigger-boys' dishwater!"
"How so ?"
"They have so well stirred it up that there is not a drop fit to drink. It is only mud."

To their annoyance they found this but too true. The indignation of Tyrrel Smith knew no bounds.
"There is no more water?" he cried, in a voice strangled with emotion.
"Not a drop!"
"But how," said he, red in the face with anger, " but . . . comment . . . moi . . . préparer . . . le tub de Sir Bucephalus?"
"His what?"
"His tub . . . his bain; . . . there!" . . .
"Ha! ha!" laughed Virgil, "that is the very least of my anxieties, I can assure you."

This was not very consoling for Tyrrel Smith to hear.
The march was resumed, although it must be owned in a somewhat spiritless manner, for no one would have been sorry to have had something to eat.

Virgil, at the last moment, was seen to be actively engaged in collecting twigs and handfuls of dried herbs which he made up into a bundle.
"Are you afraid of being frozen on the way ? and do you intend lighting a fire on your saddle-bow?" asked Tyrrel, who was still smarting from the previous ridicule of the other.
"You have guessed exactly right," imperturbably answered Virgil.

Before starting afresh, he loaded his camel with two enormous bundles of wood and four empty water-skins.

The sun was not yet visible above the horizon. The air was fresh and balmy; and the travellers, as they went along conversing cheerfully, ended by forgetting that they had had no first breakfast, and that the second was problematical. Dr. Briet, as curious as ever about the mission of M. Mauny and his committee, made three or four fresh attempts to extract an answer. But the young savant skilfully parried his questions, and as to the baronet, it was much if he answered even by a monosyllable.

After three hours' march they reached a little grove of thinly-planted sickly-looking trees. The ground was covered with a kind of moss, and with tufts of grass so fine and silky in appearance as to resemble spun-glass.

Here they encamped afresh, on the Arab declaring it to be the meeting-place Mabrouki had fixed upon. But they searched in vain for the water the verdure had seemed to promise ; there was not a trace of any.

Two hours had gone by and Mabrouki had not returned. The sun was now high above the horizon, and the heat overpowering. Our travellers began to feel the pangs of hunger by this time.
"We have guns," said Virgil suddenly. "I don't see why we should wait any longer for our breakfast!" . . .

And before any one had time to ask for an explanation of his words, he had fired at and brought down two birds resembling pheasants, whom his piercing eye had descried peacefully slumbering on the top of a palm-tree.

No more was needed to arouse the whole feathered population of the grove, and with loud cries a number of birds flew up to the sky and descended after a few minutes. Virgil had already lighted a splendid fire with his two faggots, and was soon busily engaged in plucking his pheasants. Norbert and the baronet, following his example, soon brought down a dozen birds of varied plumage. The main part of breakfast was thus amply
provided for, but, as Gertrude remarked, a little bread would not be amiss.
"Bread!" cried Virgil. "Nothing easier; we shall have it in a quarter of an hour. . . . Hi! comrade!" he went on to Tyrrel Smith, who with arms akimbo, stood looking at him, "come on with me!"

He drew him towards a kind of ravine made by the rains. In it grew a sort of reed two or three yards long.
"What will you do with this, pray?" asked Tyrrel, in a bantering tone.
"With these reeds? . . . I' faith I don't quite know."
"They are not reeds. They are what we in Algiers term sorgho, and are here called dhoura . . . not, perhaps, of a first-rate quality, but it is Hobson's choice. . . . We will begin with gathering in the harvest, and then we will turn ourselves into bakers."

While speaking he cut with his pocket-knife several sorgho-roots heavy with grains, made them into a sheaf, and took them back to the camp. The grains were perfectly ripe, and were easily crushed between two stones.
"But," observed the Doctor, "water is essential in order to make bread."
"I think so, too," answered Virgil. Groping in his pocket, he drew out a leaden ball, and carefully loading his gun with it, he looked about him. At a distance of about thirty yards stood an enormous and strangely-shaped fig-tree, the trunk of which was entirely bare. Virgil took aim at it.
"Good!" cried Smith. "He has found a target."
The shot took effect. In an instant a stream of fresh limpid water was seen to spring from the wounded tree.

Fatima stood amazed, and felt inclined to look upon worthy Virgil as a magician. He had seized a water-skin, and was hastily filling it at the improvised fountain.
"See what it is to be practical!" exclaimed the doctor. "I knew that the tribes of the Soudan were in the habit of scooping out the trunks of certain trees in order to make reservoirs of them, carefully closing them up afterwards;
but I should never have looked for one in the fig-tree, neither should I have thought of opening it in that manner." . . .
"It was not my invention," modestly said Virgil. "I learnt it from the Touaregs. They generally fire at their reservoirs in order to open them, and as the fig-tree looked like one, I thought it well to make sure. . . . But see! my water-skin is nearly full. . . . Please hold it under the fountain, Monsieur Smith, whilst I get the other skins off the back of my camel. . . ."

The Doctor went back to the travellers, who were sitting in the shade under the tent, and told them of Virgil's new exploit. They all went off at once to see the marvellous tree and drink some mouthfuls of water.

When they reached the foot of the fig-tree they found Virgil in a state of the greatest excitement.
"There is no more water!". . . he cried out . . . "and I don't know what has become of the Englishman with the full water-skin I entrusted to him. . . . Smith !! ... Monsieur Smith !!!" he screamed at the top of his voice.
"What is the matter?" replied a voice in the distance from a tent.
"I want to know where you are, and above all, where is my water?" . . .
"The water ? . . . Here, of course ! . . ."
The phlegmatic face of Tyrrel Smith now appeared at the opening of the tent.

Virgil ran up, followed by all the travellers. An unexpected sight met their eyes.

The model domestic had extracted from his inexhaustible portmanteau a splendid gutta percha tub, and, spreading it open, filled it with the contents of the waterskin, not keeping even a drop to appease his own thirst ; he had poured in a flask of toilet vinegar and thrown in a gigantic bath sponge. With a satisfied look, and a white bathing-dress on his arm, he now bowed to Sir Bucephalus, and said solemnly,-
"Your bath is ready, sir!"

Virgil had to be forcibly held down, otherwise Tyrrel Smith would have been strangled.
"Insufferable blockhead!" exclaimed the baronet, "you are at it again!" . . . and turning to the others he said, . . . "Mademoiselle, messieurs, I don't know how to apologize, . . . believe me, I had nothing to do with this incredible stupidity of my servant. . . . I don't know why I don't throw him into his tub, and hold his head under water till he is done for."

No contrition appeared, however, on the countenance of the model domestic. He was simply astonished at the scolding, for was it not the duty of a good valet to prepare his master's matutinal bath ? . . . Virgil, left to his own devices, would soon have opened Smith's eyes to a different view on this point, but luckily for the ears of Tyrrel Smith a fresh incident turned up in the arrival of Mabrouki Speke.

Mabrouki Speke had been detained longer than he wished by bad roads and by the dilatory ways of the Zaouia people. But here he was at last, with provisions, fresh water, and everything needful. . . . There was no room now for any feeling but that of amusement at Virgil's mischance, and the latter soon laughed as heartily as the rest, resolving, however, to keep a sharp look out in future over the proceedings of his comrade, Tyrrel.

The journey was completed without further incident. Resuming their march at sunset, they halted at midnight, to proceed afresh at four o'clock in the morning, hoping in this way to reach the residence of the Mogaddem soon.

## CHAPTER IV.

## THE MOGADDEM AND HIS DWARF.

IT was seven o'clock in the morning, and the sun already scorching, when Mabrouki Speke, pointing to a white speck on the summit of a hill at the horizon, said,-
"There is Rhadameh !"

Every spy-glass at once leapt out of its case, and disclosed to view the dome of a minaret whose white walls glistened amid the surrounding verdure.
"We shall be there in forty minutes," added the guide.
"A nd it will not be a moment too soon," . . . exclaimed Mdlle. Kersain, putting her hand to her white linen helmet, "for this martial head-covering is really suffocating, and yet I dare not take it off."
"Indeed you must not!" answered Norbert, anxiously. "You would have a sunstroke, which would be anything but pleasant."
" Perhaps you would rather that some one else should have one-myself, for instance!" laughingly observed Dr. Briet, as he vigorously wiped his forehead. "The heedlessness of these young astronomers is something deplorable," he continued; "what on earth would become of the expedition deprived of its head doctor ? . . . And yet I may take off $m y$ helmet as often as I like, without you noticing it."

In less than half-an-hour the little caravan reached the foot of the hill. The horses and camels went lightly up the stony road, and soon came to a waste piece of ground, bounded on the east by the walls of the Zaouia. This is the name given in Mahometan countries to the convents or stations that serve as sees or residences for the ecclesiastical dignitaries.

The travellers dismounted amid an ever-increasing crowd of pilgrims of every condition, colour, and age, who had all come to consult the famous Mogaddem. There were negroes from Darfour or Kordofan, Arabs wrapped in their wide burnouses, Turks in their baggy trowsers,Jewish merchants even were to be seen spreading out their poor merchandise in the midst of the horses, asses, and camels.

Some of the asses were uncommonly like those who had been so suddenly cured of their musical mania by Virgil two nights previously; but it was impossible in such a bewildering crowd to identify either the asses or the Berbers, whom they had only seen at night-time. So no
one even tried to do so ; they were in too much haste to expedite matters, and to see the Mogaddem.

The latter received the homage of the faithful in a large paved hall, opening outwards by two double doors. The entrance was free to all the world, and our travellers passed in with the others.

Their first impression was one of physical pleasure in exchanging torrid heat and blinding sunshine for the delicious coolness of a vast vaulted nave, that was lighted only from above by windows of stained glass. When their eyes had become accustomed to the semi-obscurity, they perceived at the further end him whom they sought.

The holy man was seated cross-legged in the middle of a wonderful square carpet, whose brilliant colours were the only relief to the dead whiteness of the bare walls. He wore a wide cotton shirt, and a white turban was tightly wound round his head. He sat motionless with downcast eyes, as if in deep meditation. His leanness was extraordinary. Although, to all appearance, scarcely more than forty years of age, his coal-black beard was thickly strewn with silver. The skinny fingers, dried up as those of a mummy, slowly passed the beads of a heavy amber rosary ; indeed, but for this movement, he might have been thought lifeless, for no sound, not even a sigh, issued from the halfopen lips, and even the long eyelashes lay motionless on his cheek.

The faithful crowded round the carpet, and followed with eager eyes the slow passage of the beads that dropped one by one from the Mogaddem's fingers. From time to time a row of musicians seated against the left wall beat upon their drums with the palms of their hands. This was the signal for a lugubrious groan that resounded through the hall, whilst all the faithful were seized with a simultaneous holy shudder. They were evidently in expectation of something, and they did not always wait in vain.

A stick of dried wood, thrown as if by chance in front of the Mogaddem, would suddenly rise up hissing, and glide with a wavy motion to his venerated feet. The
stick had become a serpent! . . . The faithful rush to save the prophet . . . when lo! the serpent stretches out its head and quietly subsides into merely a stick once more! . . .

Or again, numbers of white pigeons flying through the narrow opening in the roof, would hover round the saint, and at a word, or even only a sigh, from him, hang motionless in the air, as if suspended, three feet above the earth. . . A Another sign or sigh and, behold, they all fly away! . . . The faithful were lost in a stupor of amazement at seeing such prodigies. . . . At each fresh signal they tore off in feverish haste everything valuable they had about them-a silver-mounted poniard, or silken purse, or perchance a curiously chiselied cocoa-nut, and flung all at the feet of the saint.

He took no notice, and appeared as if rapt in ecstasy. Only if some object of greater value was offered him, such as a piece of silk or a wooden bowl filled with gold-dust, or a fragment of ivory, he would heave a sigh, and, raising his heavy eyelids, murmur a few words in reply to the supplicant's question.

At his right hand stood a singular being, a kind of deformed dwarf, who made hideous grimaces, and attracted the attention of the visitors almost more even than the Mogaddem.

He was not taller than a child of four years old, although his shoulders were of an extraordinary width. He was, in fact, as broad as he was high, and his brawny muscular arms hung down nearly to his enormous feet. A complexion black as ebony, an abnormally wide mouth, snub nose, and little eyes hidden behind thick spectacles, stamped him a perfect monster. His costume was a red silk blouse, confined round the waist by a wide blue sash; white pantaloons, yellow boots of morocco leather, and an immense white turban, from which his beard appeared to be growing, so short was the space between his forehead and his mouth.

This dwarf was apparently dumb. He stood on the edge of the carpet, about two yards from the Mogaddem,
on whom he kept his spectacled eyes fixed, without seeming to notice the strangers near. But every now and again the dwarf and his master exchanged mysterious signs that struck terror into the spectators. Doctor Briet whispered to Norbert that he fancied he recognized the mute alphabet.

At the near approach of our travellers, this singular being was evidently disturbed. A gesture of admiring surprise escaped him. His eyes shot out fire from behind his glasses. But it was only for an instant that his habitual calm was thus troubled; he quickly resumed his passive contemplation of the Mogaddem, whose ecstasy had not been interrupted in the least.

Meanwhile Mabrouki, the guide, spread out on the carpet the gifts, without which it would have been the height of bad taste to have approached the holy man. The ascetic physiognomy of the Mogaddem assumed an expression of earthly delight on beholding at his feet a gold chronometer, a spy-glass, a double-barrelled fowling-piece, and a china crape shawl. A glance escaped from under the piously downcast eyelids, and with a deep sigh the saint awoke from his silent contemplation and looked with benignity on the new faithful.

Norbert came to the front then, and couched his request in the requisite formula through the medium of $\backslash$ irgil, who repeated his words in Arabic.

The Mogaddem, who had fallen back into deep abstraction again, with closed eyes and hands crossed upon his rosary, now roused himself afresh to consult his dwarf. The latter made several rapid signs, then prostrating himself on the ground, he struck it thrice with his forehead.

After a fresh interval of silence, the Mogaddem murmured in a squeaky voice some words that Virgil hastened to interpret.

The holy man was quite willing to assist the travellers with the services of his children, the braves of the tribe of Cherofa. But it was first necessary to consult the oracle. . . .
"What oracle ? " asked Norbert.
"The oracle of the holy Sheikh Sidi-Mohammed-Jeraïb," said Mabrouki discreetly, whilst the Mogaddem, who had resumed his ecstasy, gave no more sign of life. . . .
"And where does this new saint hang out?"
"In his tomb, five hundred paces off," gently answered the old guide, whom a long experience of Europeans had accustomed to their audacity of language. "Only," he added in an aside, "it will cost another pretty sum!". . .
"What matter, if it is necessary!" . . .
"And besides, it may be amusing!" said Gertrude, who was always ready for novelties in the way of wanders.

The travellers sallied forth to find the tomb of the sheikh, without paying any more attention to the Mogaddem and his dwarf. It was moreover evident, from the renewed abstraction of the holy man, that he considered the interview at an end.

They caught sight of the tomb on a waste piece of ground three or four hundred yards from the audiencehall, and beyond the precincts of the Zaouia. It was not worth while to remount, and the party traversed the short distance on foot.

They had taken about twenty steps when Gertrude stumbled over a stone. At one and the same moment the baronet and Norbert rushed forward with extended arms to her assistance. Gertrude could not but laugh at their haste, and not wishing to slight either, she took both arms held out to her. This way of settling affairs displeased each of them, and they both went away sulkily, to her increased amusement.
"What a monster that dwarf is!" she cried. "Did you notice his resemblance to a monkey? I wonder what is the secret of his influence over the Mogaddem . . . for it is evident that the saint undertakes nothing without his advice! . . ."
"They must have done some bad business together," said Norbert in a tragic tone.
"Why such a supposition as that?" answered the baronet. "Would not their faith be a sufficient link ?"
"Faith in the power of money, you mean, doubtless,"
rejoined the young savant ironically. He had not failed to note the stealthy glance the Mogaddem had cast upon the gifts.
"Well! That is perfectly compatible with more noble convictions," replied Sir Bucephalus. "What can be done without money ?"
"I am inclined to think that the dwarf is simply the Mogaddem's appointed conjuror," said the doctor, who, with M. Kersain, had been listening to the little discussion. " Did you notice his Indian costume ? In Bengal I have often seen the like marvels done by the jugglers of the country. I have seen them make serpents out of wood, paralyze pigeons, and perform even greater wonders still."
"Those are enough, I am sure! " exclaimed Gertrude. "How on earth do they manage to arrest the flight of the pigeons and keep them perfectly motionless in the air ?"
"Probably they only appear so, whilst in reality they are slightly fluttering their wings; they are under the influence of a kind of magnetism. But in India I have seen something much more wonderful. I have seen a child of seven years old raised in the air to the height of three feet like the doves just now."
"You saw that yourself ?"
" I seemed to see it. And there was no cheating ; there were no suspending cords, no supports of any kind. The phenomenon is inexplicable by any of the known data of European science, and it is not the only one of the sort. . . . For instance, on another occasion I saw a Bengalese magician scratch up with his nails the parched soil in a garden alley, then plant in it a camellia seed, which germinated under our eyes, and in a quarter of an hour it became a plant covered with flowers."
" Wonderful! . . ."
"It was all an illusion of the senses, due to the prodigious dexterity of the conjuror. But I have seen these Indian fakirs and jugglers perform other marvels that I scarcely dare to relate to you, so inconceivable are they. These people have a host of traditional secrets touching upon phenomena scarcely known as yet to modern physiology."

Conversing thus, they reached the tomb of the sheikh. It was a small square edifice made out of one block, five yards long and four wide, overshadowed by three elegant palm-trees.

At the entrance, two dervishes with parchment-like countenances and shdven heads awaited the visitors. They came forward, bowing profoundly, and on learning from Virgil that it was a question of consulting the oracle, demanded a preliminary contribution of five piastres a head. Pocketing this, they announced that the visitors must enter the sanctuary barefooted.

Our travellers were obliged to submit, and left their boots therefore at the door.

Suddenly a fresh difficulty arose. The dervishes objected to admit Mdlle. Kersain and Fatima. But this scruple quickly melted under the influence of another gold coin.

At length the matter was settled, and they all went into the holy tomb. It proved to be a bare hall containing only a carpet well worn by the knees of the faithful. At the right angle stood a kind of cup or vase of grey marble without any apparent opening. One of the dervishes explained, through the medium of Virgil, that it received questions, and gave forth the answers of the oracle, but that the sacred formula must first be uttered.
"Very well!" said Norbert, shrugging his shoulders. "Let us have the formula then, Virgil, since we must say it."

The two dervishes, now prostrating themselves on the carpet, lifted their hands above their heads, and said an Arabic prayer together.

Virgil repeated it slowly so that his master might articu. late each word with him, which the young man did, not without evident impatience.
"Now," said the dervish who took the lead, "let the stranger lord address himself directly to Sidi-MohammedJeraïb."
"Confound it!" said Norbert in an aside, "the oracle really ought to speak French. . . ."
"I speak French !" . . . at once answered a sepulchral voice, issuing apparently from the bottom of the cup.

This unexpected manifestation so astonished the visitors that they were at first stunned. Mdlle. Kersain turned pale. Fatima's eyes dilated with fear, and she seemed on the point of fainting.

But Norbert soon shook off his emotion, that sprang from surprise only, and he now bent down to the vase with a smile upon his lips.
"Sidi-Mohammed-Jerařb," he said, "since you know French so well, we can talk freely. I am in need of your powerful assistance, in order to obtain the necessary means of transport from the tribe of Cherofa, your beloved daughter. Will you help me?"

At the name of the saint the two dervishes had thrown myrrh into the lighted censers hanging from their sashes, and swung them to and fro. A thin thread of smoke rose up, filling the hall with a penetrating perfume. The voice of the marble cup answered,-
"You must first tell me what has brought you to the Soudan, and what end you have in view."

The young astronomer could not repress an involuntary gesture of astonishment, whilst his travelling companions drew nearer to hear the interesting dialogue.

After an instant's hesitation, Norbert thought he had better continue the conversation.
"I have come," he replied, "to study the wonders of the heavens, and for this purpose I mean to erect an observatory on the table-land of Tehbali."
"You are not telling the whole truth," replied the oracle. "You have a more audacious scheme in view!"

For an instant Norbert was put out of countenance, and held his peace.
"I am omniscient," resumed the oracle. "Nothing escapes me. I know the present, the past, and the future. Shall I prove it to you by saying what you seek to do on the mountain of Tehbali?"
"Say on," said Norbert merrily.
"Laugh not! . . Your levity is ill-timed . . . for your
undertaking is a most foolish one. . . . You are come hither to contend against the eternal laws that regulate the Universe. . . . If you are our friend, we can but pity you, inasmuch as you will be vanquished in the struggle.' . . . if you be an enemy, Nature will take our vengeance upon herself! " . . . It is impossible to give any idea of the effect this sinister prediction from an invisible mouth produced upon the audience. Norbert laughed no more. His reason could scarcely master the stupor that came over him on hearing the replies given by the oracle. But still he was loth to believe that any one at Rhadameh could really know his secret.
"Think you," resumed the voice in terrible accents, "that anything concerning the people of Allah can escape me? Your scheme had not been formed three minutes ere it was known to me! . . . You have the presumption to aim at suspending the course of the moon, to attract it to the earth and render it accessible to human cupidity! . . . That is your senseless scheme ! . . . But I here tell you that it will not succeed!"

Norbert and Sir Bucephalus looked at. each other in amazement. Was it possible that their secret had been violated ? . . . How could the pretended oracle know it ? The only explanation they could think of was that one of the commissioners left behind at Suakim must have been indiscreet, and the betrayed secret, travelling faster than the caravan, had preceded them to Rhadameh. . . .

It was indeed astonishing to meet with it here through the invisible agency of an intelligence that could speak French, and whose voice issued from a marble vase ! . . .

Doctor Briet was evidently most deeply interested in the revelations. His twinkling little eyes went from Norbert to Sir Bucephalus, trying to read their faces and find out whether what the oracle said was true. Not less great was the surprise of M. Kersain and of Gertrude. As to Fatima, she had fallen on her knees as soon as the voice first spoke, and, hiding her face in her hands, gave herself up to superstitious terror. And no wonder! For it would have tried stronger nerves than those of the little servant to have heard
the terrible voice issuing apparently from the earth; the effect heightened by the sighs of the dervishes who were squatting on the carpet, and the aromatic perfume that in spiral clouds of bluish colour rose up from the smoking censers. . . . Virgil alone took it philosophically, looking round him with all his accustomed sang-froid.

Norbert was the first to recover himself.
"Well," he said imperiously, " if you know our scheme, you also know that it is in nowise inimical to the Arab people. . . . Yes or no ; will you help us to the necessary means of transport ?" . . .
"I will," said the oracle.
Then suddenly condescending to earthly details, he continued,-
" You must pay in advance ten piastres a head for every man or beast, and in seven days the 800 camels you require shall await you with their guides under the walls of Suakim."
"That is what I call speaking to the point," cried Norbert gaily, "and this oracle evidently knows how to do business! . . . To whom must we pay the 16,000 piastres ?"
"To the envoy of the Mogaddem, who will fetch them, and will give a receipt at the French consulate."
"That is settled, then. . . . But tell me, Sidi-Mohammed Jeraïb, is our alliance to end with the transport?"
"It will endure so long as you regularly pay tribute to the Mogaddem."
"What tribute ?"
"That which is due to him, if you wish his children to protect you in the desert, and give you the assistance you need."
"How!" said Norbert, rather ironically, " would they lend themselves to an enterprise that you disapprove?"
"Yes; if you pay the tribute, they will not trouble about your plans."
"And how much is it?"
"Twenty times twenty piastres a month."
"I willingly agree," replied Norbert.
"Then farewell . . . and may Allah go with you!"

With these words a lugubrious groan issued apparently from the vase. The dervishes arose, and slowly intoning a psalm in a low voice, they retreated backwards to the entrance, swinging their censers the while. The visitors instinctively followed their example, and, still under the influence of the astonishing scene, put on their shoes in silence. Fatima was so completely stupefied by it all that she stumbled over her Turkish slippers, and would not have found them again, had not Virgil picked them up and put them into her hand.

They now set off towards the encampment chosen by Virgil at a few paces distant. He had already pitched their tents, and had brought thither the fresh provisions they had procured at the Zaouia. After a little while they all began to exchange ideas concerning the strange facts they had witnessed. Norbert alone remained silently buried in his own reflections.

None of them could understand it. That there was some clever jugglery behind was plain, but how was it managed ? How was it that the oracle could give such an exact statement of the young astronomer's project ? The doctor especially was devoured by curiosity.
"Come, Sir Bucephalus," said he merrily to the baronet, "you who are in the conspiracy can tell us if the oracle was right! .... There is Mdlle. Kersain dying to know the truth. Will you leave her to find it out from M. Mauny ?"
"Speak for yourself, uncle," exclaimed Gertrude, with a merry laug.. ; "don't try to hide your curiosity under cover of mine. You know that you have been in an agony for three days to find it all out!" . . .
"I acknowledge it," replied the doctor. "But I swear that my curiosity is purely in the interests of science.'
"M. Mauny," observed M. Kersain, "did not certainly contradict the oracle. But if he does not see fit to trust us with his plans, we have no right to force his confidence."
"Bosh !" responded the doctor, "when the secret is flying about the desert!" . . .

At this moment, Norbert, who was walking on in
silence, turned round, and addressing the consul and his daughter, said, -
" The oracle made use of a very simple artifice. There is evidently an acoustic tube connecting the Zaouia with the tomb of the sheikh, and thus enabling the Mogaddem to hear and answer the questions ; unless, indeed, it is mere ventriloquism. But still there remains to be explained how it is that this fellow can speak French, and, above all, how he has managed to ascertain my project. . . . For, as a matter of fact, he did not tell any lies. . . . I have in reality come to the Soudan in the hope of getting hold of the moon, . . . and under pain of being taken for a fool, I must now explain how I intend to set about it. . . . Do you not think so, too?" he added to the baronet.
"Most decidedly," answered the latter.
"Well, then," pursued Norbert, "if Mdlle. Kersain and these gentlemen will grant me patience, I will recount at breakfast-time how the idea, which must seem so scatterbrained to them, first came into my head. . . . I don't ask them to agree with it as practicable. I only beg them to believe that I have good reason not to deem it such utter folly as the sheikh pretends to think."

This was a delightful announcement to Doctor Briet, and as they had now reached the tents, all sat down to breakfast. When the dessert was put on the table, the young savant redeemed his promise. We will content ourselves with giving the substance of his account, adding several details concerning his associates that a natural reserve led him to suppress.

## CHAPTER V.

## THE OFFICE IN QUEEN STREET, MELbOURNE.

Seven months previous to the arrival of the Dover Castle at Suakim, three men were together on the ground floor of a house in Queen Street, which is one of the most
beautiful in Melbourne, herself the queen of Australia. Although near mid-day, that busiest of commercial hours in Anglo-Saxon cities, these men were doing nothing but lazily reading the Argus, Herald, Tribune, and other morning papers. They sat on morocco arm-chairs in front of great mahogany desks. The room was separated from the corridor by panes of ground glass, and a partition of the same material divided it from the street, and bore in brass letters the inscription:

## ELECTRIC TRANSMISSION CO. (LIMITED),

Peter Gryphins, Vogel, Wagner \& Co., Sole Agents.
Against the right wall stood a magnificent iron safe of stern business-like aspect. The left wall supported a marble chimney-piece on which stood models of electrical machines and submarine cables ; whilst beautifully framed diagrams and plans occupied every free space. In its own quiet corner stood the telephone, ready for confidential communications. Openings were cut here and there in the ground glass for the various purposes of "deposits," "inquiries," and "dividends." A thick Turkey carpet covered the floor, and everything in fine bespoke opulence and security.

Perhaps, indeed, a little too much security, judging from the idleness of the three partners.
"Ignaz Vogel," suddenly said one of them.
"Peter Gryphins ?"
"How much have we in the cash-box ?"
"Seven pounds sterling, eleven shillings, and threepence."
"What payments are we expecting before the end of the month ?"
" There is a credit of twenty pounds to Wolf; but it is no more likely to be paid than that of last month ; four pounds due from Johannsen, and twenty-eight shillings from Krause."
"And how much have we to pay on the 30th ?"
"Three thousand pounds sterling, six shillings, and twopence."
"Are they pressing debts ?"
" Most pressing! They have the signature of the firm, the stamp of the house, and the sign manuals on paper bearing the royal arms."
"Does this amount include the accounts or the rent ?"
"No! Peter Gryphins."
"Nor our salaries and those of Costerus Wagner and Müller's wages ?"
"No! Peter Gryphins, not even the wages of Mrs. Cumber, the housekeeper."
"If such is the case, Ignaz Vogel, it is probable that about the 7 th of next month, the house of Peter Gryphins, Vogel, Wagner \& Co. will be declared bankrupt."
"Say for fraudulent bankruptcy, Peter Gryphins, and you will be right."

With this ironical, if somewhat sad conclusion, the partners buried their heads once more in their newspapers.
"It is all our own fault, too!" exclaimed Costerus Wagner, a minute afterwards, speaking for the first time. "We wanted to do too much in proposing to amalgamate every possible combination of electricity! . . . It did not take with the public. We ought to have contented ourselves with some one thing, at once novel and simple ; such as 'the transmission by electricity of the force of the waves and tides,' for instance! That would have been understood. Oh! if only we could begin again!"
" Costerus with his crotchets again!" said Peter Gryphins, turning up his nose.
"Hang it all! We see the sort of thing done by companies every day, and facts prove their success! It is all the fashion . . . 'platina mines of Congo,' 'swallows' nests of Formosa,' 'Devonshire bitumen,' 'false hair from the Herzegovina,' the more absurd the better likely to take in fools. But as to Transatlantic cables, induction machines, electric accumulators, how can you expect them to appeal to cooks, jockeys, and tenors, who are the real capitalists in these days?"

A resounding knock at the outer door cut short these effusions. Footsteps were heard in the corridor, and presently two little taps were given on the shutter inscribe Payments.

Ignaz Vogel opened it leisurely, and was confronted with a head framed in carroty whiskers. The following dialogue ensued :-
"Can I see the director, Mr. Peter Gryphins ?" . . .
"He is not here at present."
"Is he always absent?"
" Just so."
"When will he be back ?"
"As soon as he has settled an important matter at Sydney."

Silence ensued. Then the voice resumed :-
"It is about the account for the iron safe. . . . Cannot you settle it? . . . This is the eleventh time I have brought it."
"We have no orders to do so. But if you are pressed, and short of money, I can ask the manager to authorize me to pay it. He shall be written to this very morning."
"It is not a question of my being short of money," said carroty whiskers, evidently vexed.
"Then you do not wish me to write? Very well. He shall not be written to," instantly retorted Ignaz Vogel, as if this settled the difficulty.

And he closed tha shutter
Hesitating steps were heard slowly retreating down the corridor, and indistinct grumbling : at last the man was gone.

A quarter of an hour went by in silence : then the sound of the knocker was again heard; a heavy tread creaked along the passage, and some one tapped on the shutter labelled Inquiry. Peter Gryphins opened it this time.
"A parcel for the Electric Transmission Company," said a drayman with an oilskin cap on his head. "Sent by Simpson, Exchange Agent, 27, Hercules Street. Will you sign the receipt?"

Peter Gryphins looked at his partners with dismay, then
having signed the paper, he opened the door. The messenger put down his parcel with a letter and departed.

Peter Gryphins read aloud as follows :-
"With regret I return you the five hundred shares of your Company with which you entrusted me. Notwithstanding all my efforts, I have been unable to negociate even one on any terms whatsoever, and the state of the market precludes any hope of subsequent success.
"I remain, sirs,
" Your obedient servant,
"Arthur Reginald Simpson."
"Were they the last shares out?" asked Peter Gryphins.
" The very last. All the others have been called in and arranged in order in this cupboard," answered Ignaz, opening a sliding panel in the wall. . . . "There they are! Ten thousand fine sheets of foolscap paper worth at least twopence each if there was nothing printed on them, and not worth a rap with our seal on them!" he added with a sigh.

Placing the parcel on the only free shelf, he shut up the cupboard, and returned to his desk.
" It is enough to make one believe that the shares are bewitched," groaned Costerus Wagner. "I could understand it if only a thousand, or even a hundred, or say fifty were sold! . . . But that not one should be taken! . . . To think that throughout the Australian continent not a single man should be found to appreciate the affair and invest twenty pounds in it!" . . .

Just at that moment, as if in obedience to his wish, the longed-for rara avis knocked at the shutter labelled Inquiries.
"Is this the Electricity Transmission Company?" asked a sallow, clean-shaven individual with yellow hair plastered down on his temples.
"It is," answered Costerus, who was the appointed janitor of the Inquiries.
"Is the subscription list closed ?" rejoined the sallowfaced man, with evident anxiety. not long proof against the serious air of the new comer, and the look in his little grey eyes of evident annoyance at being too late to participate in the advantages of the wonderful speculation; and so, on reflection, Costerus saw reason to rejoice.
"When I say that the subscription is closed," he resumed in a diplomatic tone, "I speak of the public subscription. .. . The shares, as you rightly suppose, are all sold. We had, indeed, to decline numerous applications on the very first day of issue."

On hearing this, the sallow face fell lower still, and the poor man sighed deeply.
"But still, if you are disposed to make a sacrifice and give an immense premium to obtain some of the shares, we might, perhaps, persuade one of our subscribers to give them up to you. . . . Do you want many ?". . .
"Oh, no! . . . Twenty or thirty . . . if it is at all possible."

Thirty shares! It was nearly a thousand pounds sterling!... Costerus Wagner glanced at his two partners dumfoundered with surprise and hope.
"I think that can be managed," he replied paternally, "if you are disposed to give twenty-one pounds instead of twenty for each share. But you must make a deposit."
"I have the sum with me," said the other, feverishly brandishing a bundle of bank-notes.
"Very well. I will receive it-Ignaz, draw out a receipt. ... Please to hand them in at the next window, and give me, sir, your name, address, and profession in full." . . .
"Tyrrel Smith, valet of Sir Bucephalus Coghill,onet, Bar of 29, Curzon Street, London, and now of the Victoria Hotel, Melbourne."
"That is a good house," said Costerus, with a patronizing air. . . . "Should Sir Bucephalus desire some shares on the like conditions, we shall be happy to supply him with them. . . . You have no stamp with you? . . . Never mind! Ignaz will give you one. . . . Good-bye for the present, sir ! . . The shares shall be at your disposal in a few days' time."

The window closed on the bank-notes, and Tyrrel Smith went off triumphant.

Eight hundred pounds! It was an unexpected windfall to the Electric Transmission Company! . . .
" I vote we have a good lunch at once," exclaimed Ignaz Vogel, " and talk over matters!"

This was agieed to on all sides. It was easier to talk with one's feet under the table.

Müller, the office boy, who passed his days yawning in the passage, was despatched forthwith to a neighbouring restaurant, and soon a succulent repast was spread on the office table.
"My advice," said Peter Gryphins, as soon as there was a slight pause in the business of eating, "is that we should at once share the dividend among us, and wind up the Company. We have found our ideal shareholder, true, but he is evidently the only one of his species. We had better seize this opportunity; we are not likely to have another."
"Agreed!" cried Ignaz Vogel. "If we give thirty shillings to Müller for his wages, we shall be entitled to two hundred and twelve pounds sterling, that is to say five thousand three hundred francs in French currency, or four thousand two hundred and forty German marks. It is a tidy little sum, which would not be very beneficial to our creditors, but we shall find it very useful to ourselves!"
"Much good it would do us to have two hundred and twelve pounds each!" cried Costerus disdainfully. "How
can you dream of such an absurd division? . . . Are we to leave this splendid office in one of the great streets of Melbourne, and eight hundred pounds sterling in cash, with the experience of a first attempt to boot, and not turn it all to better advantage than that? . . . It would be idiotic! . . ."

So saying, Costerus expressed his opinion by vigorously thumping the table with his fist.
"It would be idiotic," he repeated. "As I said just now, the only thing that was wanting to our success was to manage to impress the imagination of the public. Do that, and you will have not one, but ten or twenty thousand shareholders. . . . Not eight hundred and thirty pounds, but eight hundred thousand, eight hundred millions of pounds, any amount you like to name! . . . Now listen! I have a scheme in my head that would make a fine sensation!"
" Let us hear it !" exclaimed Ignaz and Peter simultaneously.

They were greatly influenced by their partner, owing to his immense superiority over them in the way of actual learning. His was a strange history. He was a typical example of the fate that may overtake the highest genius when unaccompanied by good principle, and sound, practical common sense. Costerus Wagner had been one of the most brilliant scholars in the Friedrich-Karl Gymnasium of Berlin and the University of Göttingen. At the age of twenty he was a doctor of philosophy, already of note among the most distinguished young physicians of Germany, and on the staff of the Hildesheim Observatory as one of the assistants. At twenty-five he was known to the world of science as being the author of a remarkable work on stellar radiation. Unfortunately this character did not correspond with the strength of his understanding. He could not shake off the drunken habits he had contracted at the University; he was neglectful of social duties and observances; and he had such an exaggerated notion of his own importance, moreover, as to think himself wronged because he only held a secondary post, and had not yet
been admitted a member of the Academy of Science. He had long paved the way to a final fall by his open disdain of his superiors, and by the continual scandals of his private life. It was a question only of time. He struggled to live by teaching as a private professor, but his vices followed him everywhere, and could not but lead to the one inevitable result of failure. Falling lower and lower until he had reached the deepest depth of misery and degradation, he emigrated to Melbourne as a last chance. Here his still vigorous understanding stood him in good stead; he conceived the idea of utilizing in a practical manner the recent discoveries concerning the transference of mechanical forces by means of electricity. Meeting by chance with Vogel, a compatriot, and Peter Gryphins, an American who had amassed a little money with a foreign circus, the chief attraction of which had been a remarkable dwarf, he entered into partnership with them, and they set up at the house in Queen Street. Once more failure seemed to dog his steps. Their fundamental idea was a good one, founded on experimental facts of great interest, but the promoters were unfortunately strangers to the ways of the Australian market. The three partners soon used up their small capital of cash and energy. Most of their money went in preliminary expenses of advertising and starting their business, or else in premiums to go-betweens who lured them on with false promises. At the end of six months they saw the bottom of their purse, and were on the point of overstepping the slender barrier between solvency and bankruptcy.

At this moment Tyrrel Smith appeared on the scene, with his welcome eight hundred and thirty pounds, and Costerus Wagner, taking heart, resolved to resume operations, trusting this time to gull the public credulity, and make it subserve his own advantage.
"Have you any notion of astronomy?" he continued to his two partners. "No matter if you have not . . . You will better resemble the public whom we have to catch. . . . Know, then, that this earth on which we live is one of the planets that revolve round the sun. It is but a star
like the rest, a little globe of small importance. It may be compared to a gigantic cannon-ball turning on its own axis like a humming-top, whilst at the same time describing an ellipse round the solar centre. . . . There are other planets both larger and smaller than the earth, that are also suspended in space at different distances from the sun. What is the power, you may ask, that holds them thus suspended? I will just briefly answer that they keep their places by their own movement, and by their mutual attraction for each other. Among these planets are some so near to us that we can already foresee the time when earthly beings will be able to enter into relations with them, either by way of optical telegraphy, or otherwise. Perhaps we may succeed some day in travelling from one globe to another, just as we now go from London to Paris, or from Melbourne to San Francisco. But we have not got to that point yet, however. . . . Among those worlds that are nearest, and are beginning to be known to us with great exactness of detail through the recent researches of astronomy, there is one that belongs to our own system, and is indeed dependent on the earth. It is her satellite, the moon.
"You must know that apparently the moon once made part of the incandescent matter of which our earth was originally composed, and was only separated from her at a comparatively recent period. She revolves round our globe, whilst at the same time she moves with us round the sun. The distance that separates her from us is so small that it is looked upon by astronomers as almost nothing.
"Some idea may perhaps be gained of it by considering that we are $14,000,000$ leagues distant from Mars, the planet nearest to us, whilst the moon is scarcely 90,000 leagues from our earth. The proportion is like the respective distances of towns that are 4II leagues, or only one league apart.
"A telegram would reach the moon in a second and a half. Tourist and alpine guides have undoubtedly traversed on foot quite as great a distance as that between the earth
and the moon. It would not exceed indeed twenty times the distance between London or Paris, and Melbourne. Clearly, then, the moon can, with all strictness, be considered just a suburb of the earth."
"Evidently!" said Peter Gryphins and Ignaz Vogel, opening wide eyes in the endeavour to take it all in, but only understanding a word here and there, notwithstanding the elementary character of their first lesson in astronomy.
"Well!" resumed Costerus Wagner, getting up and striding about the room; "given this propinquity of the earth and moon, does it not seem strange that no one has tried to go from one globe to the other?". . .
"But I thought that the attempt had been made in America, by means of a prodigious cannon and an ammunition waggon ?" rejoined Peter Gryphins.
"It is true that a Frenchman did make the attempt, and even succeeded in his enterprise, which is most valuable from our present point of view. But his venture was unique of its kind, precisely because the means he employed were most exceptional, and difficult to reproduce. The plan that I propose you should submit to the public, or rather that you should carry out, will be of commercial importance. . . . We have to get hold of the moon, and open a decided and direct communication with her, so as to come and go at our will-to annex her, in a word, to our own world, and have full command over all her riches and resources known or unknown!" . . .
"Can that be possible ?" asked Ignaz Vogel.
"I really think so. But let me point out, oh, young and ingenious friend, that it matters little to us whether it be feasible or not! . . . All we have to do is to bring out a company for the conquest of the moon. The question is not whether this be really possible, but only whether it can be made to appear possible. . . . Now $I$ will answer for that! .. . And I will add that the journey just alluded to by Peter Gryphins will prove of vast assistance to us. . . ."
"But what practical interest can the matter be to the world at large ?"
"I think that is sufficiently evident of itself! Suppose
that a new unexplored world were offered you, full of every sort of mineral riches-of gold, silver, platinum, precious stones, coal, marble, rock salt, and the rest. . . . Would you not find it tempting ?"
"Is all that in the moon?"
"Not only all that and much more, but it has been found out to be actually the case. In the last fifty years astronomy has placed the matter beyond the shadow of a doubt, and it is mentioned in all the specific manuals of science. . . . The moon is now almost as well known as if the foot of man had already gone there. We have the geographical Lunar map; we know its seas and continents ; we have measured the height of its mountains ; we have named them, photographed them, and have even discovered by analogy their chemical constituents. . . . In fine there is nothing remaining but to take possession of a world already known to us, with more minuteness of detail than either Central Africa, Australia, New Guinea, or the polar regions of the earth!" ...
"Let us go there at once!" cried Peter Gryphins. "I want my ticket directly."
"The ticket will be rather expensive, replied Costerus Wagner significantly. "And for that reason, friends, in order to defray our expenses, we must apply to a source having more money than the Rothschilds themselves; to all the world, in fact!" . . .
"Costerus, you are our very dear friend!" exclaimed Peter and Ignaz, as they embraced him in their enthusiasm. "If your prospectus is as clear as your explanations, our fortune is made ; we shall soon roll in good English guineas to the tune of thousands and tens of thousands!"
"All right, then, let us draw up the prospectus at once," rejoined Costerus, "so that it may be in all the papers to-morrow morning!"

Sitting down to his desk, and talking a large sheet of paper, he wrote the title as follows:-
"LUNA COMPANY, Limited. An Association for the conquest and exploration of the mineral riches of the Moon. Working capital, Two Millions Sterling."

## CHAPTER VI.

## LUNA COMPANY, LIMITED.

Costerus Wagner was right in saying that the surest way for a company to succeed is to appeal to the imagination and work upon the credulity of mankind.

His scheme succeeded precisely because of its extravagant pretensions, which were everywhere discussed. The most serious papers took it up, and although they would not have devoted ten lines gratuitously to promote an ordinary paving company or the like, they gave up several columns to debate the prospectus of the Luna Company. Colonial vanity had doubtless a share in this, for those most sceptical in the realization of the project were gratified by the fact that the idea emanated from Australia. The scheme was soon known all over Oceana, and discussed in every grade of society. Would-be shareholders besieged the office in Queen Street, and before very long it became necessary to have a special postman in a closed carriage every morning with the registered letters that hailed upon the office from all points of the compass. Peter Gryphins, Wagner, Vogel \& Co., sole agents, were soon under the delightful necessity of opening a deposit at a bank. They did the thing grandly by entrusting their capital to the well-known house of Boutts \& Co.

The strangest fact about the affair was that Costerus Wagner had not even taken the trouble to explain by what means he intended to carry it out. He was probably well advised in this; for would-be opposers of the novel scheme had nothing but conjecture to fall back upon, and consequently they could not attack it to any great extent. Costerus declared that he would keep his secret safe until the Company was thoroughly established. Such reticence was highly applauded by the credulous, who were more eager than ever to embark their money in a company thus judiciously managed.

The sole plan in reality that the governing committee of
the Luna Company had in view was to net two millions sterling. And to tell the truth, that same plan constitutes the practical philosophy of most financial companies in this lower world.

Howbeit, the number of subscribers increased so rapidly that it became really necessary to lower the shares ; and on the first Board Day they were obliged to hire the grand saloon of the Victoria Hotel for the reception of the subscribers. The chair was to be taken by Lord Randolph Clederow, a young nobleman on a visit to Australia. He had purchased five hundred shares, and had also laid a wager with Sir Bucephalus Coghill of a thousand guineas to one against thirty that the enterprise would succeed ; which being interpreted means that in the event of success Sir Bucephalus, who was very incredulous by the way, bound himself to pay 30,000 guineas; whilst in case of the contrary contingency, he would only receive a thousand. It is clear from this arrangement, borrowed from the usages of the turf, that the young baronet was by no means sanguine about the Luna Company, whose prospectus had been shown to him by his model valet.

There was a numerous meeting on the i5th October. It was attended by stockbrokers, merchants, ship-owners, brokers, and crowds of commercial men generally. On the platform sat Lord Randolph Clederow, flanked on either hand by a wine merchant and a tea merchant; Lord Randolph was a tall, fair, almost beardless young man, very near-sighted, and an eye-glass stuck in one eye; he was dressed to perfection.

The preliminaries over, and Lord Randolph unanimously voted to the chair, proposed by the wine merchant, seconded by the tea merchant, Costerus Wagner stood forth to develop his programme.
"The time," said he, "had arrived when all the continents of earth were divided among its various races. A new field must be sought for British enterprise. The Anglo-Saxons were settled in North America, in Australia, India, and Western Africa ; their dominion extended over three parts of the globe, and they could not hope for
further conquests on its surface, since a recent conference had internationalized Central Africa. But were they, therefore, to sit down idle? He, Costerus Wagner, did not think so.
"Quite close to the earth, a few millions of leagues in space, was another world as yet unexplored, ready and waiting to yield her riches up to the human race . . . (Applause.) This world was the inseparable companion of our earth, and accompanied her in her perpetual revolution. . . . It was so near that our astronomical telescopes had determined the form of its continents, the height of the mountains, and the configuration of the seas ; . . . so closely assocated was it with our life that from ages immemorial time had been measured by the lunar phases, and the tides of the ocean controlled by the same action. . . . It was high time, in fine, that the moon should be brought into direct communication with her mother country, her sovereign protector, the earth. . . . (Renewed applause.)
"Costerus Wagner would not insult his audience by repeating what all the world now knows concerning the moon, thanks to its thorough exploration by means of telescopes. Doubtless, every one present knew that the moon was a globe, 2153 miles in diameter, her surface equal to a thirteenth part of the earth, four times the size of Europe, and forty-one times that of France; in fine, that she was a colony of most respectable dimensions. As to her distance from the earth, he only mentioned it to draw attention to its insignificance. She was scarcely 240,000 miles off, that is to say, twenty times the distance that separates Melbourne from London!
"Costerus Wagner would even maintain that, as a matter of fact, and taking into account the actual progress of science, the moon is nearer to us than was the Cape of Good Hope or the Isle of Cuba to the Greeks of the time of Pericles, or to the Romans under Augustus.
"The only point on which he wished to dwell was the fact that we did not yet know whether or not the moon was inhabited. In any case it was equally desirable to
come to close quarters with her, . . . for, if peopled by a civilized and numerous race, English commerce would find in her a new field ; and were she, on the contrary, uninhabited, the vast mineral riches of her virgin soil belonged of right to British industry."

This bold speech evoked a perfect round of applause, amid which was heard repeated cries of "Hear!... Hear!... And let us form the company at once!" shouted several impatient shareholders.
"I understand that a desire is expressed for the immediate formation of the Company," said Costerus as soon as silence was restored. "We are here for that purpose, and I have much pleasure in informing the distinguished audience that there has been so great a run upon the ten thousand shares in the market that we have been obliged to divide them. (Fresh rounds of appiause.) Nothing now remains to be done except the formality of taking the votes, if agreeable to the noble president ; but first I must, according to custom, invite possible objectors to speak."

None stirred. One young man only rose up at the end of the room, as if about to ask a question, but reseated himself without opening his mouth. Lord Randolph Cletherow waited three minutes, and then, turning to his two supporters, he said,-
"Gentlemen, I have the honour to propose the formation of the Luna Company, Limited, working joint stock company, for the acquirement and exploration of the mineral riches of the Moon, with a capital of two millions sterling, divided into ten million shares. Let all who second my proposal hold up their hands." . . .

Every hand went up, as if drawn by invisible threads from the ceiling.
"Any objectors ?" resumed the president.
Not a single protest was made.
"There can be no doubt as to the general opinion," pursued Lord Randolph Cletherow. (Applause and acclamation.) "Consequently I have the honour to declare the Luna Company to be well and duly onstituted. . . . I shall now proceed to read the statutes that should, accord-
ing to legal usage, be voted separately, article by article. . . .
"' Article I. The direction of the works is now, and shall remain until their completion, in the hands of Mr. Costerus Wagner, assisted by Messrs. Peter Gryphins and Ignaz Vogel, the originators of the enterprise.' I put the article to the vote: those who approve will have the goodness to- . . ."
"I demand to be heard," said, with a very French accent, the young man at the bottom of the room who had seemed at the first vote as if about to speak then. His visiting card was rapidly passed on from hand to hand till it reached the president, who, reading it aloud, said,-
"The right of speech is with M. Norbert Mauny, doctor of science, assistant astronomer at the Paris Observatory, and commissioner to New Zealand and Tasmania."

All eyes turned to the stranger, who had already taken possession of the platform.
"Gentlemen," he began at once, "I wish to make one very simple observation. I have purchased twenty shares in this Company. This proves my faith in the enterprise, which I hope to see successfully carried out. But whilst I have quite understood the wisdom of the promoters in keeping the means to be employed secret until the Company was formed, I protest against any further discussion of the statutes without some knowledge of the nature of those means. . . . I demand some explanation before the interests of science, and our own interests, are entrusted to the Committee"

The audience seemed struck with the fairness and moderation of this proposition.
"He is right! He is right!" exclaimed many.
Costerus Wagner, visibly disconcerted, had to return to the platform.
" Gentlemen," said he boldly, " absolute secrecy concerning the means to be employed is one of the indispensable elements of success in an enterprise of this kind. You have been good enough to trust me hitherto: I beg for a
continuance of your confidence as our only safeguard against imitators and rivals!". .
"We can settle it in a way that shall satisfy every one," replied Norbert Mauny. "Let the promoters of the enterprise communicate their plans to a delegation of members chosen now, who retiring into a private room for the purpose of hearing the facts, shall draw up a summary to be communicated to us; and let them use their discretion as to matters that it may be advisable to keep secret. . . . We can then continue our discussion of the statutes in perfect confidence."
"True! ...True!" exclaimed several subscribers.
"No! . . . No!" . . . cried others. "We will not have a delegation! . . . We demand a public and open explanation." . . .

- Then ensued a great uproar; and at length, after ascertaining many individual opinions, the president declared that the general consensus was in favour of a public explanation, even with certain reserves if necessary.

After consultation with his partners, Costerus Wagner seemed to have made up his mind, and, returning a third time to the platform, he said,-
"In faith, gentlemen, I should certainly have preferred absolute secrecy, and I still think it would have been the wisest course on every ground ; . . . but I quite understand your very natural curiosity, and after all, as our Company is now irrevocably formed, there will be no harm in letting you know the great outlines of my project. . . . ( $A p$ plause. Hear! . . . Hear! . . .) Its leading principle is this. The distance in perigee of the moon is scarcely 90,000 leagues, as I said just now. What is 90,000 leagues ? About twenty-seven times the diameter of our globe, which is not even the whole length of the iron rails that cover its surface, supposing these to be laid end to end. . . . Is this to stand in the way of the generation that has penetrated the Mont Cenis and the St. Gothard, and has made the Isthmus of Suez and of Panama? ...I think not, indeed. In my opinion it is simply a question of constructing an aerial tubular tunnel of sufficient length,
having its foundation on the earth and directed vertically towards the moon. It will be made of segments of castiron, laid end to end. One segment firmly fixed, the rest will be merely a question of numbers. . . . It may seem a bold undertaking, but it is quite practicable. All due proportions observed, it is only as if a capillary tube of a metre and twelve centimetres in length were fixed on an orange six centimetres in diameter. . . . You have merely to substitute the vertical globe for the orange, and in place of the capillary tube, one that shall be of a sufficient length and breadth. . . . The problem is the same. This is my main idea. . . . I must, of course, be reticent concerning the requisite ways and means to carry it into practice, for your common sense will tell you that it would be dangerous to speak of them here in detail. Suffice it that the plans have been long and carefully studied and matured, and they are now ready. They are not in the least chimerical, and will appear quite simple when we come to carry them out!"

Some little applause followed, but it was slight and of a hesitating nature. The audience were evidently more disappointed than not with the explanation. All eyes turned to Norbert Mauny, who had, for his part, listened with illconcealed scorn.
"A mighty simple question, indeed!" he said. "How do you mean to climb your chimney? Perhaps, like the sweeps, by means of a rope ?"
"The problem is capable of several solutions," retorted Costerus Wagner, " and we can make our choice between them when we are building the tunnel."
"You will certainly have plenty of time," replied the French astronomer, " for the enterprise, even if it bs feasible, will take a long course of years!"
"Not so long as you seem to think!" exclaimed Costerus. "I guarantee to finish it within five years!"
"In five years?" said Norbert, taking out his pocketbook. "We are out of our reckoning! . . . If I understand rightly, you contemplate the erection of a kind of tower of Babel? An enormous lighthouse in fact, on the widest and highest site you can find, say on the summit of
the Himalayas, with one storey rising above another up to the moon.
" Not to be so indiscreet as to inquire how you expect to enable your workmen to breathe when they shall have reached a certain height above the earth ... I content myself with the bare figures in question, and this is the result they give : supposing that your tower rises at the rate of 328 feet a year,-which with two or three exceptions is the greatest height ever yet attained by any monument-it will take 500,000 years to complete it! ... Supposing that its annual progress is 3 miles, you would require 65,000 years. If it grows at the rate of 375 miles, it will take 508 years. If 3000 miles, you will require eighty years to finish it.
"In order to bring it to completion in five ycars, it must rise at the rate of 50,000 miles a year . . . It is, you see, a matter of simple calculation. . . . The plan is utterly impracticable from this point of view at all events, even if it were not also impossible on every ground!". . .

A cold shower-bath could not have produced a more chilling effect upon the audience. Costerus Wagner was dumfoundered.
"We must quash the votes and have our money back!" suddenly exclaimed a corn merchant.
"Yes! ... Yes! . . . Let us have our money back!" echoed several hundreds of voices.
"You have no right to it !" howled Peter Gryphins, jumping on the platform and shaking his fist at the audience-" it was legally voted, and Parliament even could not annul the proceedings now!...The subscribed shares belong to the Company. . . . Whoever disapproves of the management is at liberty to retire. But the capital cannot be touched!" . . .
"That is the chief thing in your eyes, doubtless," cried a shrill voice above the uproar.

In vain the President tried to restore order.
He was about to put on his hat as a sign that the meeting was dissolved, when Norbert Mauny checked him with a sign that he had more to say.

Silence ensued at once.
"It does not follow that everything is bad about the Company," he said. "I am far from so thinking. On the contrary, I must own that the problem it proposes to solve has been working in my mind for some years past, and I call it a disgrace that humanity has not yet conquered our near satellite, the moon ! . . . I agree with Mr. Wagner that if we do not set about it, the matter will assuredly be settled by our sons or grandsons, who will mock at the idea of its having been deemed an impossible achievement. When, therefore, I saw by the newspapers that the attempt was about to be made, I sent my subscription and crossed the torrid zone to give my assistance in the enterprise. It is not the practicability therefore of the scheme that I have criticized, but the proposed plan of action, which seems to me to be equally wrong, puerile, and impracticable ; whereas it would be comparatively an easy task to overcome all the difficulties by other means." . . .
"How now!" muttered Costerus Wagner . . . "You have your own little plan, have you? Why on earth didn't you say so before?"
"Yes," answered Norbert ; "I have my own plan, and I am ready to lay it before the assembly if they wish me to do so. I have come to Melbourne for that purpose. But, first of all, I must give an account of myself, that I may not be looked upon as an Utopian."
"Yes! . . . Yes! . . . that's it. . . . Speak out!" exclaimed the people, charmed with his fervid eloquence.

Encouraged by the applause he met with, Norbert began by giving, with a frank modesty of demeanour, the broad outlines and aims of his life and studies. The son of an inspector-general of forests, he had early been drawn to mathematics, and had passed with distinction successively through the Naval and the Polytechnic Scheols. At the age of twenty-two he was a pupil of the Astronomical Observatory of Paris. He accompanied the scientific expeditions to Taiti and to the Isle of Kerguelen, and on the morrow of his obtaining the great Gobert prize for proficiency in the study of spectral analysis he had the singular
good fortune to make the discovery of two hitherto unknown planets. Inheriting soon afterwards a small independent fortune, he was about to start off on a fresh mission to Tasmania, when he heard with surprise of the new financial company in course of formation at Melbourne. Norbert himself had always been inclined to these speculative dreams, based only on hypothesis, and outside the domain of actual science. Often and often he had spent long nights in taking observations of the moon, and as he explored her continents, craters, and valleys, and photographed every little detail of her surface, he had indulged in many a day-dream as to the possibility of reaching her distant shores. He had made no secret of his wild theories, and had angered more than one old astronomer accustomed only to the routine of daily observations in accordance with the known rules of science. In vain did the young man point to the gigantic strides made of late in physical science, and to the vast increase that every year brings to our knowledge of the moon; in vain did he spend himself in explaining how we have a right to hope for further revelations from the mere fact that clearer and more detailed impressions of our satellite can be taken with the telescope and camera obscura than are obtainable of the African Continent. He was only treated as a heretic to science. The young man at length, disgusted with the spirit of routine, vowed to himself that he would be reticent concerning his ideas until it should be possible to carry them out. He had long thought that he had solved the problem. The only difficulty that stopped the way was the enormous capital required. But now the money was at hand; and though possibly the subscribers could not claim it back, they had an indisputable right to dictate and regulate its employment. Everything depended on whether they would fall in with his views.
"Speak up! . . . speak up!" . . . replied the assembly.
"I come now," said the young orator, sipping a glass of water, "to the plan that I think feasible."

## CHAPTER VII

SIC vos NON vobis.
"First of all," continued Norbert Mauny to the assembly, who seemed spell-bound under the charm of his clear, musical voice, "we must face the nature of the problem before us. What is it that we all wish to do ? . . . To go to the moon out of scientific curiosity and collect a whole treatise of notes and observations? . . . Doubtless this would quite content many people, but not-I will answer for it-the shareholders of the Company. (Applause and smiles.) What most of us want is a permanent way of access to the moon, that, when once opened up, will permit of our going and returning at will, enabling us, therefore, to explore the riches and carry away the products of our satellite. . . . This way must not be too difficult, nor must it be beyond our financial resources. In a word, it must be as practicable to humanity as are railroads and steamboats. . . .
"Now there are two chief obstacles to this enterprise. The first is the distance of the moon, which, though insignificant in theory, is very considerable in practice; the second is the doubt existing concerning the nature of the lunar atmosphere. Many astronomers are sceptical even as to the existence of such an atmosphere. I differ from them, and I could bring forward irrefragable proofs to support my opinion. But whether human life could subsist in lunar-air is another point, concerning which no one can speak positively in the present state of science. . . . Consequently prudence dictates the necessity of not venturing into the lunar atmosphere without a sufficient provision of our own air, much in the same way as the diver provides himself before plung ing into the depths of the ocean. The scheme, in act, is only feasible as a scientific experiment; it would not subserve the interests of commerce, nor could it ever come into general use. (Evident astonishment.)
"These considerations have forced upon me the conclusion that there is only one. solution of the problem-we
must endow the moon with an atmosphere similar to our own, and we can only do this by . . . forcing the moon to come down into our atmospheric zone. . . . (Exclamations of zvonder.) This would annihilate the distance between us, and do away at the same time with many other difficulties. . . . Our satellite would henceforward be at our mercy. . . . We could go there either in a balloon or by means of a tubular railway. We could turn to account all her resources, and, getting hold of her riches, bring them to earth . . . unless, indeed, we might choose to settle down permanently in our lunar colony. (Laughter and great applause.)
"In fine, the whole question may be thus resolved: we must not go to the moon; we must force her to come to us.
"There are several good reasons for this. First of all, it will be less fatiguing and more convenient to us; for when she is partially at least immersed in our atmosphere she will become habitable, which is not perhaps the case at present, and, secondly, it does not seem possible to solve the problem in any other way, whilst this appears to be quite feasible.
"We need not be afraid of disturbing the inhabitants of the moon, for they have disappeared now, even if they ever did exist, which is doubtful. The moon is a dead world. Daughter of the earth, she has grown cold before her mother because of her smaller dimensions. It would be an act of kindness to give her a little heat, if only by utilizing the combustible treasures that are doubtless concealed within her. (Applause.)
"' It is all very well,' you will perhaps say, 'to talk in this light manner of bringing the moon down to us. . . . Pray have you any means of getting hold of her?' . . . I might reply with Archimedes, 'Give me a well-balanced lever of sufficient length, and I will lift up the earth!' But this would be no answer, and I prefer to say just simply, ' Yes, I do firmly believe that we have a force at our disposal that can act upon the moon.' (Great attention.)
"The force I speak of is Electricity of Induction, or Magnetism, if you prefer so to term it, or again, the unique
power that manifests itself in diverse ways of Electricity, Heat, Light, Movement, Cosmic attraction, Weight, and Magnetism. . . .
"There can be no doubt that we possess this force. It is equally certain that we can turn it to any account, and that it is a mere question of its presence in a sufficient amount ; which again is, as I hope to prove to you, only an arithmetical calculation. But, first, we must form a right conception of the earth and moon as they really are -two globes rolling along together in space, many forces combining to keep them suspended, whilst, notwithstanding their size and weight, they are light, and sensitive to the least accidental influence, as might be two soap bubbles of unequal size in our own atmosphere. That they are indissolubly united is plain to every one ; and not a fisherman on our shores but knows as well as an astronomer that they exercise upon each other a mutual influence, subject, indeed, to various modifications, but an undoubted fact in these days. The tides are under the direct influence of the moon. She draws us forward in her first quarter; in her last she retards our course. We, on our side, hold her irresistibly enchained to our fortunes. . . . But we are also influenced in other directions. This great globe of ours that we think so enormously big and heavy, is nothing more in reality than an imperceptible speck in boundless space. It may be compared to a child's air-balloon fastened to a thread and disturbed by the slightest breath. If Venus happens to pass between the sun and us, the earth is attracted and sensibly drawn by the day-star. Her progress is likewise influenced by Jupiter, who moves serenely through the blue ether at a distance of two hundred million leagues from our globe. Neptune, (istant thirty-seven millions of leagues, feels the solar influence like ourselves; and in the invisible depths of space comets, thirty or forty thousand million leagues from the sun, yield to his invincible power and fly to his fiery embrace. There are other worlds trillions, and quadrillions of leagues apart, far larger and heavier than our own, moving through space and sustained in like manner. Of what nature is this mysterious power
thus mutually binding and upholding all the globes that hang in the blue ether? . . . I will tell you, not in my own words, but in those of Père Secchi, the far-famed Director of the Roman Observatory: 'The mysterious bond that links all the worlds together is magnetism, that strongest of all cosmic forces, inasmuch as its action is absolutely irresistible. It is not confined to the earth, but is to be found in all the other worlds that act and react upon each other as if they were great magnets of immense power.'
"It is not surprising that the most eminent of modern astronomers should have come to this conclusion. Elementary physics have already taught you that the earth is a magnet, having, like others, an equator and two poles, meridians, and magnetic parallels, and that its power increases in intensity from the equator to the poles. This, as you know, is why the needle of a compass always points in the same direction, and whenever there is an exception to this rule through some inequality in the direction of the magnetized needle, or in the intensity of the magnetic force, it is due to a local cause, such as ferruginous rocks or the like.
"There can be no doubt that the same phenomena exist in the moon, for it is incredible that she could form a solitary exception to the other worlds. Kreil, Sabine, Bache, and others since their time, have established the fact that our satellite influences the magneto-meters, and that its action varies with its horary angle.
"Your compatriot Gausse went still further. He succeeded in measuring the force of that gigantic magnet, our earth, and found that it is equal to that of 8464 trillions of soft iron bars weighing a pound each, and strongly magnetized.
"I come now, gentlemen, to the result of this somewhat dry statement, necessary though it was in order to elucidate my idea. Not only do we know the nature of the force that retains the moon at a distance of 90,000 leagues, preventing her from following her own impulse and flying off into space, but we also have it in our power to increase this force by making an electro-magnet of any intensity we
like. . . . Is not this clear from what I have said? In order to bring the moon within our grasp, and diminish the distance between us, we have only to increase, by artificial means, the power of the earthly magnet." . . .

The orator was interrupted here by a tremendous round of applause. The audience had suddenly seen his meaning, and it came upon them with double effect after their previous experience, first of disappointed hopes, and then of dizzy heights where they could only strain their eyes in a vain attempt to follow science. They did not yet see how he was going to carry out his scheme, but that it was feasible was evident, and they had every confidence in the young astronomer. Silence being at length restored, Norbert continued :- "Gausse calculates the force of the terrestrial magnet to equal that of 8464 trillion bars of magnetized soft iron weighing each an English pound. There are strong reasons for deeming this figure much too high. But we will follow out his calculation. The density of iron is about seven times that of distilled water (exactly 7.7 ) ; therefore, 8464 trillion pounds of soft iron would amount to about 30,5 Io trillion cubic inches. This mass would be equal to a mass 1090 yards high and I23,500 acres in area.
"This would be the size of an artificial magnetequal to the earth in power. It would be a long and costly proceeding to construct such a magnet. But there is no apparent necessity that it should be so powerful. One of less intensity could sufficiently disturb the equilibrium of the cosmic forces that hold the moon 90,000 leagues off. Given the perturbations that the simple passing of a planet can cause, it follows that an extra magnet representing only the millionth part of the earth's magnetism must be able to influence such a little globe as the moon.
"Now according to the above calculation, this artificial magnet, whose intensity would be as (I) 1000 as compared with that of the earth current, would constitute a mass of 109.36 yards, and 1235 acres, or 1093.6 yards, and $123 \frac{1}{2}$ acres.
"Such are the normal proportions possible in works of
industry at the present day; but when there is the smallest question of iron highways, the needful ramparts and earthworks are matters of much greater importance.
"But the ideal magnet made of soft iron and perfectly homogeneous would cost a great deal, something like one hundred million pounds. Men would not mind paying this sum for the expenses of a more or less stupid war, and indeed the annual military expenditure of Europe exceeds it ; but they would look twice before investing two or three hundred millions at a time in a commercial enterprise for the general good. . . . So we must manage to make nur magnet at a reduced price.
"Most fortunately nature can herself furnish us with the requisite material in the shape of bisulphide pyrites, or proto-sulphate of iron. It can be used in its natural state, and is common to most countries, costing only the labour of extraction. I propose that an artificial mountain of iron pyrites shall constitute our magnet. We will erect it in a land that abounds with pyrites in order to have a free site and save needless labour. In this way we shall manage to make an electro-magnet of the required strength for 400,000 ., not quite a quarter of our working capital. This is of course only one part of the expenses. We shall still have to procure dynamos and the requisite motive power ; but $600,000 l$. will, I wager, cover all expenses.
"What is such a sum compared with the results it will effect? . . . Not more than the annual income of an English peer or banker ; and scarcely is it a seventy-fifth part of the military budget voted every year by France and England alone. We have quite sufficient money, and more than we need, if we only use it rightly. Such, gentlemen, is the outline of my plan. Its details will be easily settled. The first step is to secure our field of action. It should lie in a country easy of access, rich in pyrites, but poor from an agricultural point of view, so that we may get the soil for next to nothing. It would be well also if its civilization be at a low ebb. We should be less likely to be interfered with if our object were not understood. . . . Should you think fit, gentlemen, to approve of the general
outline of my plan, I will hold myself entirely at your disposal as regards its application and the preliminaries!". . "Will you take the personal direction upon yourself?" asked a shareholder.
"Willingly, on the condition," replied Norbert Mauny, "that I have perfect freedom of action in technical matters, and am assisted in financial questions by a committee of

The meeting was so clearly unanimous in its assent to this proposition that Lord Randolph made no attempt to stem the current, and, addressing the shareholders, he said :-
"I put the first article of the statutes to the vote, substituting the name of $M$. Norbert Mauny in place of the original promoters of the scheme."
"You have no right to do so!" cried Costerus Wagner, livid with rage. "It would be a fraud, a positive theft!"
"I shall not stop to point out the singular and regretable bad taste of such an expression in present company," said the young president, with great dignity. "We formed ourselves into a company for the conquest of the moon, but it is evident that we never renounced our right to confide its direction to the one most competent to bring about a happy issue (unanimous applause). I believe that in putting the first article to the vote, modified as above, I speak as the mouthpiece of all. The vote will show if I am making a mistake. Let those hold up their hands who approve M. Norbert Mauny as Director, with full powers, of the Luna Company."

Every arm was uplifted with the exception of two or three.
"On the contrary," said the president.
Three hands went up : those of Costerus Wagner, Peter Gryphins, and Ignaz.
"M. Norbert Mauny is elected Director," continued Lord Randoiph. " He requests, and I accord him, the right of speech!"
"In thanking you, gentlemen," said Norbert, "for the honour that you have done me, allow me to remind you of
the condition that I attached to its acceptance. This was the repudiation on my part of the financial responsibility, all the expenses of the enterprise to be regulated according tc my views, by a committee of control. The funds will remain where they are, in the bank. All payments will be made by cheque, bearing along with my signature those also of the members of the committee. . . . Subject to these conditions, which I do not suppose any one here will controvert, I take the liberty of proposing, as an act of justice, that the three promoters of the company should form part of the committee."

The delicate thoughtfulness that prompted this proposition seemed to strike the shareholders, who assented to it, though without enthusiasm. By a slender majority of four or five votes only, Costerus Wagner, Peter Gryphins, and Ignaz Vogel were elected members of the administrative council. Although these men had found no fault with Norbert Mauny's plan, and perhaps just because of their passive attitude, the shareholders had quite lost all faith in them. But anyhow, they were now duly elected.

The president then proposed to associate to their number his friend, Sir Bucephalus Coghill, who would, he said, be an excellent critical element, as he did not believe in the undertaking. This proposition was haiied with great approval, and immediately carried. Three professional financiers completed the list of the committee. After this, the meeting broke up, leaving full powers to the board for the regulation of all matters of detail in conformity with the statutes.

Thus did the scheme, so audaciously conceived by Costerus Wagner, for the purpose of gulling the shareholders of the Luna Company, become a scientific enterprise under the control of a man of honour, and distinguished savant to boot.

After serious deliberation, Norbert Mauny fixed upon the Soudan as the basis of action. He had learnt from the account given by a friend who had recently returned from an expedition to East Africa, that all the necessary geological conditions were to be found in the Bayouda
desert, and more especially on the table-land of Tehbali, west of Berber, and north of Khartoum. It was not very easy of access, but as far as Suakim the sea would be available for the transport of material. The land could be had for nothing, and labour was cheap. There was every reason to believe the plans of the Luna Company quite unknown, and the existing state of anarchy in Egypt, with whom rested the suzerainty of the Upper Nile, relieved them from the necessity of soliciting authorizations that perhaps on other grounds too, it might have been difficult to procure. The open desert would be their field of action, and there would be no official complications in the dangers inseparable to an enterprise that would unquestionably be fertile in surprises.

There was one serious drawback in the Soudan, the scarcity of fuel.

Norbert resolved to obviate this by simply utilizing the heat of the sun to work his machines, thus making even the temperature of the desert a positive gain in economy.

Five months were consumed in the choice and purchase of material that was constructed simultaneously in London, Paris, and New York. Six more weeks passed in the voyage through the Straits of Gibraltar, Suez Canal, and Red Sea; and seven months after the formation of the company, the expedition reached Suakim in the Dover Castle.

It did not take Norbert Mauny long to form his judgment concerning the three whom, in a fit of ultra-generosity, he had associated with himself in the Committee. He knew nothing of their history, but he saw clearly that they would prove most inefficient coadjutors, for not only were they ignorant and idle, but they also evinced an open hostility to all the measures he, as Director, saw fit to initiate.

But some such distasteful accompaniment -was, he well knew, only to be expected in conjunction with any great undertaking, and, after all, there was nothing easier than to restrict his intercourse with these three individuals to the barest official relationship.

## CHAPTER VIII.

STARTING.

On their return to Suakim everything turned out as the Mogaddem of Rhadameh had promised. The very morrow of their arrival a ragged dervish presented himself at the French Consulate with a duly-drawn-up receipt, and pocketed the sum agreed upon in good gold coins, which he stowed away in a little leather bag. On the sixth day, according to the arrangement, eight hundred camels stood at the western gate of the city in readiness for the orders of M. Norbert Mauny.

The unloading of the Dover Castle went on rapidly, and the quay was soon covered with mountains of bales and cases that were taken out of the hold of the vessel, covered over with oilcloth, and placed under the supervision of the orderlies of the expedition. The camels were then brought up in squads of fifteen and twenty at a time; they knelt down to receive the enormous burdens that were fastened on their backs by means of pack-saddles of a special make. The name of each driver was registered, together with the baggage committed to his care, for which he was held responsible until its safe arrival on the table-land of Tehbali.

A week went by in these preparations, and our friends naturally became more intimate every day, what with frequent croquet parties on the sands, musical evenings, and open-hearted talks about their adventurous undertaking, now no longer a mystery. Norbert had only, indeed, kept it so secret for fear of the probable hostility of the Arabs to an enterprise having the subjugation of the "Crescent" for its object.

The baronet and Mauny became great friends, and Doctor Briet was completely at home in his brother-inlaw's Consulate.
M. Kersain was quite beholden to his guests for the pleasure of their society, especially for the sake of his daughter, whose health had been greatly ameliorated by
the excursion to Rhadameh. The healthful fatigue of roughing it for five days al fresco had agreed with her wonderfully. Her complexion was slightly sunburnt, and this heightened the effect of her rosy cheeks and bright eyes, whilst radiant health was apparent in the sprightly vivacity that now characterized every movement, in striking contrast to her former languor.
"This is how I like to see you, little one," said her delighted father.
"It rests with you, dear papa, that I should always be as well," replied the young girl. "Let me often make such amusing excursions as our trip to Rhadameh."
"Well, we'll try to manage some, though I can't promise you the like charming company. But I agree with you and Doctor Briet, that fresh air, healthy fatigue, and horseriding are just what you need."

As to Costerus Wagner, Peter Gryphins, and Ignaz Vogel, they were scarcely ever seen, and nobody regretted it. They generally spent their days asleep in their hammocks in the Dover Castle, and the nights card-playing in an Arab café that, to them, was a perfect paradise. The atmosphere, thickly impregnated as it was with tobaccosmoke, was uncommonly like that of a German beershop, but there was no beer to be had, except some flat English pale ale, and Costerus Wagner loudly lamented the absence of his national beverage.
"The devil take the moon and him who wishes to bring her to earth!" said he, as with dismay he looked at his muddy drink by the light of a smoky lamp. "One might as well drink out of a duck-pond!. . . Curse the Company! . . . Curse the French! . . . Curse the expedition! . . . Curse the country!". . .
"And we haven't done with it yet!" groaned Ignaz Vogel. "The lot is cast now, and for at least a year we are condemned to stay in this desert. . . . There was some chance of escape so long as it seemed impossible to procure the means of transport; but, as ill-luck would have it, the wretch of a Frenchman has succeeded in overcoming all obstacles. . . . How the deuce was it, think you, that the

Mogaddem of Rhadameh did not trouble himself concerning the intelligence we sent him through the Arab ?" . . .
"What does it matter ?" said Peter Gryphins, philo. sophically. 'You know that, for my part, I never believed in that way of stopping the expedition. The Cherofas saw they had a chance of netting a good sum, and naturally took advantage of it. Don't let's talk any more about it," he continued, mixing his favourite concoction of whiskytoddy.
"Not say any more about it, indeed!" cried Costerus Wagner. "It is not so easy to get over being cheated out of such a splendid idea as mine, which would have landed us two millions sterling in less than a fortnight. . . . A chance like that doesn't come twice in a man's life. But what is to be done now? We can't leave the expedition and throw up the Company."
"Who talks of it ?" cried Peter Gryphins. "It would be simple madness to throw up two millions sterling, although the money has already begun to melt, alack!... The Frenchman is going it pretty fast, by Jove !.. . . Orders to the amount of five hundred thousand dollars at New York, three hundred thousand pounds in London, seven million francs at Paris! ... Insulators, one costing five hundred francs ; steam-engines, dynamos, no end of kilometres of brass wire, enough chronometers for ten observatories, chemical produce sufficient to stock at least twenty manufactories, and silk that would make thirty balloons, not to speak of the provisions, ropes, zinc reservoirs, and stills; the vessel itself of nine hundred tons, and what more! . . . Oh, doesn't the Frenchman know how to throw about the money of the shareholders, egad! If he goes on at this rate, do you know there won't be a penny left by the end of the year ?". . .
"That is just why we ought to have stopped the expenditure before now," said Vogel.
"But how? . . . Tell me how, instead of wasting words
"Confound it! I don't well see how."
"Then you had better hold your jaw! . . . We cannot
stop the expenditure in Australia or in Europe," sensibly observed Peter Gryphins. "The shareholders gave the Frenchman full powers."
"True !" replied Costerus Wagner. "But this is another matter. Although we failed to set the Mogaddem against the Frenchman's scheme, there is no reason why we shouldn't try again. You agree with me that we can't possibly let the ruinous affair go on to the end ?"
"Quite so!" said Ignaz and Peter together.
"Should it succeed," continued Costerus, "we lose our posts, as the Committee of Control will then come to an end. If it does not succeed, the working capital will be all gone, and we shall be in a nice hole." . . .
"But do you really think there is the least chance of its succeeding ?" inquired Peter Gryphins.
"I think there is," replied Costerus. "I don't see any strong reason against it. But look here! We do not intend that it should succeed! . . . It was not for the Frenchman's benefit that we got all those pounds sterling out of the shareholders, fools that they were! . . . Neither was it for the progress of science! It was for our own selves alone! . . . Therefore we must act,-act before the whole of the two millions sterling is gone. . . . Isn't it so ?"
"Most decidedly," replied Ignaz and Peter.
"Supposing the enterprise is abandoned, the Frenchman will have to return to Melbourne, and acknowledge that he has failed: then it will be our turn. An enraged shareholder is the most ferocious of beings : we found that out to our cost that day in Victoria Hall. Our fine friend the Paris astronomer must find it out too! Once the concern is handed over to us to manage, or even if only for liquidation, you shall see what turn affairs will take!"
"That's it!" cried Ignaz, gleefully rubbing his hands as if they already held the cash-box.
" Be quiet!" suddenly said Gryphins in a low voice. "Here is the astronomer's soldier-servant."

The three conspirators silently took up their pipes, and, as they lit them, Virgil came into the room for a cup of Arabian coffee. He perceived the commissioners at once,
but they made as if lost in a gentle reverie and unconscious of his advent. The good fellow was too devoted to his master not to have already felt instinctively that the latter was hated by these men. But this evening he was struck by something about their manner at once constrained and insincere. Eyeing them attentively whilst pretending to sip his coffee and puff a Turkish pipe, he soon saw that they were whispering together and casting sidelong glances at himself.
"One would say," he thought, "that I have interrupted these gentlemen in their conversation! I wonder if perchance they are plotting against my commanding officer ? It really looks like it, and I am pretty sure they have no love for him. . . . But we'll keep our weather-eye open, depend upon it, my fine birds! I think for the present it will be well to rid them of my presence."

Shaking the ashes out of his pipe, and tossing off his cognac, the Algerian sharp-shooter tipped his chechia over his eyes at the correct angle of forty-five degrees, and sauntered off with a swagger.

Preparations hastened forward, and were soon all completed; the caravan awaited but the signal to start for Berber.

The Consul gave a farewell dinner on the eve to Mauny, and invited Sir Bucephalus, Commander Guyon, and Doctor Briet. The conversation turned naturally to the expedition. They were inclined to think that after all perhaps its dangers had been exaggerated.
"The whole aspect of the affair is changed," said M. Kersain, "since you have contrived to gain over the Cherofas, for success would have been impossible without them. Now it is not at all unlikely, provided only you keep on good terms with these powerful allies; you have in your favour the most irresistible argument of a full purse, coupled with a natural generosity that has already earned you a noble nickname from the camel-drivers."
"What is it?" asked Gertrude.
"Openhand," replied her father.
"That's all very beautiful," cried the doctor; "but
you are forgetting the Mahdi, who, with only a word, could at once change the good-will of the Cherofas into the most dire hostility!"
"True," replied the Consul ; "but Kordofan, the Mahdi's headquarters, is a long way off from us, and far from the Bayouda desert. On the other hand, I have just learnt that the Egyptian Government has at last resolved to make an end of the insurgents. They are concentrating a most imposing army at Khartoum, viâ the Nile, and it is to be commanded by English officers."
" That will put a new face on matters," said the doctor. "But nothing will be of any use except a decisive march on Kordofan. Until the Mahdi's head hangs on the wall of Khartoum it will be impossible to govern the Soudan."
"Fetch me my fan, Fatima," suddenly said Mdlle. Kersain, "it is on my dressing-table. The heat is something overpowering this evening!" . . .

The little maid ran off with her usual alacrity to do her mistress's bidding.
" I couldn't help noticing that child's eyes, they shone like carbuncles while the doctor was speaking of the Mahdi," said Commander Guyot. "Is she a Soudanese ?"
"We don't know, nor does she," replied M. Kersain. "The little girl was probably brought from the Great Lake country by slave merchants before their infamous traffic had been stopped by Colonel Gordon. She was found in the desert hard by, half dead with hunger and clinging to her mother's corpse."
"Poor little thing!" exclaimed every one. Fatima came back just then, and they changed the conversation.
"It was a great loss to civilization in general," dogmatically observed the baronet, "that Gordon did not remain Governor-General of the Soudan."
"It was, indeed," rejoined M. Kersain, "and though, as you know, I do not always agree with you about English policy in this country, I am quite of your opinion that your illustrious compatriot was the bravest and most capable official in the Egyptian Government. Had he remained
at Khartoum, the Soudan would now be peaceful and prosperous."
"Why did he not remain ?"
"Because he had no confidence in Teufik, the new Khedive ; and a Governor-General of the Soudan must, before all things, be sure of the man under whom he serves."
"One thing is certain," cried Doctor Briet, "by losing him it may be said that Egypt has also lost the Upper Nile ! It is a splendid country, most fertile, and the gentle, inoffensive natives are easily governed. But the halfcentury of Egyptian rule under Mehemet Ali has been characterized by a series of follies, not to say crimes. Rapine and ruin reign in the place of plenty, and God only knows how it will all end, for the present insurrection is caused solely by misery and hunger!"
"Let us hope, at all events, that it may end well for our friends," said M. Kersain as he toasted his guests.

Dinner over, they stepped on to the terrace, and the conversation turned again to the exhaustless subject of the Soudan, its resources, and its chances of better times in the near future.

The subject was growing rather wearisome to Gertrude, and she went to the piano and commenced playing the simple old French airs that are now once more in vogue. Norbert drew aside to listen.
"Thank you for such sweet melodies," he said. "They will haunt me in the desert, as it were the echo of voices from home."
"Do not try to make out that you are the one to be pitied," cried Gertrude. "You know well enough that we shall all be bored to death when you are gone! I don't know what poor papa and the doctor will do, for it will not be easy to find any one to replace Sir Bucephalus and yourself!"

Although, with feminine dissimulation, putting them on the same footing in this speech, Gertrude had long ago found out that she had impressed the two young men very differently, and she knew now that the depth of their
devotion to herself was to be measured in inverse ratio to their demonstrativeness.

The admiration of the baronet was perhaps real, but it certainly was commonplace; it might also be termed common, inasmuch as it had been lavished on a hundred young girls before, and probably would be again lavished on others in the future ; whereas there was an exclusiveness and special tenderness about Norbert's attentions that enhanced their value tenfold.
"If only," said he, "I could hope that you would remember me really, it would lessen the pain of going away. But what right have I to indulge in such a day-dream! Protestations are generally looked upon as out of place, but you will forgive me for saying that I shall look back so regretfully on the happy time I have spent here, that it would be hard not to have the assurance that I also shall be missed."
" You are right," said Gertrude, " to despise the generality of worldly protestations, for in times of real sympathy one longs to express one's thoughts in some language other than vulgar commonplace; but, indeed, you may believe that my father and I shall always think of you with true friendship."
"How good of you to tell me so! Take care, though ; I am going to take advantage of this privilege in order to tell you a secret!"
"I am all attention," said Gertrude. Her tact told her that there was no fear of impertinent familiarity from him.
"Well, then," said Norbert, " it will be some comfort to own to you that a sense of discouragement is weighing me down, even now that success seems more than probable. I know not whether it is a presentiment of coming evil, or whether I have overrated my capacity! But, howbeit, the thought of leaving Suakim is unbearable!"
"Do you really contemplate giving up the expedition ?" asked Gertrude with great surprise.
"I' faith, I believe that it only wants a word from yourself to settle the matter!"

There was a moment's silence.
" I shall not say the word, even had I the right to," said Gertrude very gravely. "Putting aside our own interests, it would be a treason to science to deprive her of the glory she may reap through your discoveries, for I have faith in you, and so far from holding you back from this enterprise, I conjure you to take courage. Go forward to conquer, and let us see that we are justified in our high hopes of a striking victory."
" You have restored me to myself," said he, pressing the little hand held out to him. "I will not lose courage again, for you are waving me on to glory! Fare you well, Mademoiselle."
"How so!" said the Consul as he entered the room just in time to hear this last word. "Are you leaving us already ?"
"I must. I have some orders to give, and we start in two hours, soon after midnight."
"Well, go and give your orders. But Commander Guyot, Doctor Briet, and myself intend to accompany you part of the way, if you will let us, and start you on your journey."
"Needless to say I shall only be too glad to have you. Where shall I pick you up?"
"No necessity to change any of your arrangements. We shall be at the Western Gate towards midnight."
"Good-bye till then! May we meet again, Mademoiselle!"
"I am sure that we shall," answered Gertrude, "and may you have every success in your noble enterprise!"

Seated at her chamber-window soon after midnight, and looking westward, Gertrude saw in the silvery moonlight a thin white line of burnouses slowly disappearing in the distance.

It was the caravan starting on its journey. In twelve days it would be at Berber, and would cross the Nile in flat boats. In fifteen or twenty days it would reach the tableland of Tehbali. . . . And then! What would be the end of this bold experiment? Supposing it failed, how would it be possible to bear up under the mortification and dis-
grace? Notwithstanding the hopefulness of her words to Norbert, Gertrude was far from feeling perfect confidence concerning all these points.

A sigh behind her made her turn round. It was Fatima.
"What is it, then, my child ?" she asked kindly. "You seem sad this evening ; and my little chatterbox, contrary to her usual custom, has not opened her lips."
"I have reason to be sad, little mistress, when the gentlemen have gone into the desert."
"Does that grieve you?"
"Doesn't it grieve every one here ?" said the little maid knowingly. "But, alas! little mistress, there is more cause for grief than is known!"
"What do you mean, child ?"
"If you only knew what I do mean! No one is afraid of me, and so I often find out things that the white men have no idea of. . . . If you only knew what is coming! If you knew how the giaours are detested!... A long way off, near the Lakes, there is a great prophet, who has come to save the sons of Allah! ... He is a real saint, and no one can. resist him. ... He has sworn to exterminate every one of the Europeans. . . . This is what the Arabs and the men of the desert are saying. . . . They declare that all this will happen very soon, perhaps within eight days : that the signal will be given from Kordofan and the Blue Hill as far as Darfour, Suakim, Dongola, and all the countries near the Cataracts. Then there will be a grand massacre of the white men. . . . It is dreadful to think that poor M. Mauny, and the English lord, and that good Virgil, and even that other cross valet, are all going straight into this hell! ... I was longing to speak when you were all talking at dinner of the Mahdi, but I didn't dare, and then you sent me to fetch your fan."
"Exactly, my child; and if I had not sent you away, you would have heard my father say that a great army is preparing to march against the Mahdi."
"Oh! it will not be of any use, little mistress ! . . . You don't know how enraged they all are, even the porters on the quay, and those Berbers of the other night with the
donkeys! . . . They are saying that there must be an end to the strangers in their land, . . . that the Prophet has ordered the slaughter of the infidels, . . . with many other things that would make your hair stand on end! . . . Oh! do get away as soon as possible with the master, and take Fatima. She is the only one here who loves you!... But what have I done?" continued the child. "You are quite pale, and I shall make you ill with my tales!"
"No! little one, I am not ill, only very anxious. . . . What you say is a confirmation of the fears expressed by those who have experience in these matters, and it seems to me that I myself have had my suspicions all along. . . . I don't like my father to go out of the city! Poor father ! He will not leave Egypt, I know! . . . And I certainly will not leave him, no matter what happens."
"Nor will I, dear little mistress! But I am only a child, and perhaps I have exaggerated the danger. I was wrong to speak of it. Don't think of it any more. Go to bed: it is late, and the master would not be pleased if he knew you were still up."

Gertrude yielded to these affectionate supplications, and, throwing herself on her couch, tried to sleep. But terrible pictures of war and slaughter haunted her imagination, and when, in broad daylight, she at length closed her eyes, it was only to experience over again in dreams the dreadful anxieties of her waking hours.

## CHAPTER IX.

## THE GREAT MAGNET.

SEVEN months had gone by, and, contrary to all expectation, nothing had happened to justify the fears felt at Suakim; for although anarchy still reigned throughout the Soudan, and the most persistent rumours were current on both shores of the Nile concerning the approaching uprising of all the tribes to drive out the giaours, the uprising
had not taken place, and the Egyptian garrisons in the interior had no difficulty in holding the fortified stations and towns. The Mahdi and his partisans seemed, in fact, to be losing, not gaining, ground, and the advance of an army ten or twelve thousand strong from Khartoum, under Hicks Pacha, had driven him from his capital, ElObeid, and forced him to beat a retreat towards the south.

Meanwhile, on the plateau of Tehbali the works directed by Norbert Mauny progressed happily and well. Everything hitherto had gone as he wished, and, as he himself said, he could not be too thankful for the spot he had chosen. He had, as we know, studied the subject attentively, and had taken the greatest pains to secure the best geological conditions possible. There was, therefore, every hope of success. In the first place, the indispensable magnetic pyrites abounded to such an extent in the western desert of Bayonda, near Darfour, that whole mountains, a thousand or twelve hundred metres in height, were entirely composed of it. Norbert chose the loftiest, the peak of Tehbali, for the seat of the enterprise.

It was an immense crag of conical shape, made of perfectly homogeneous rocks, and, standing on a plateau two kilometres square, it towered above the surrounding heights by seven or eight metres. Nature herself seemed to indicate this as the fitting site, for its great natural astronomical advantages were at once most evident.
"I know of no observatory equal to it," said Norbert to the baronet, "with the exception, perhaps, of the Pic du Midi in the Pyrenees, where General Nansouty has taken up his quarters. The Pic du Midi, moreover, is covered with snow, and almost inaccessible for three parts of the year. That will not be the case here."

A few borings sufficed to show that the geological constitution of Tehbali was all that could be desired. The peak was, indeed, an enormous conical-shaped, solid block of magnetic pyrites, fifteen hundred metres high, on a lesser section of sixty hectares.

Samples of the pyrite broken off with the hammer and
carefully analyzed, were found to consist of bisulphide of iron. It was remarkably firm, malleable, and exceedingly ductile, and to the full as magnetic as nickel and cobalt, if not equally so as soft iron. It acted, in fact, exactly like a magnet influenced by a magnetized bar, or by an electro-dynamo. It was similar, also, to soft iron, in that its magnetizing power ceased when the determining cause was suspended.

Sand abounded at a depth of fifteen hundred metres in a vertical line underneath the summit of the peak. The enormous lump of sulphate of iron must have solidified in the fine yellow sand at some period of geological convulsion, much in the same way as cast iron, in the smelting stage, coagulates in a shape of soft slag. Nothing since the meeting at Victoria Hall had given Norbert so much pleasure as the discovery of this peak, with such perfect geological conditions that he was spared the trouble of building an artificial mountain of magnetic pyrites. The mountain was not only ready made, but it was far higher and broader, more uniform, and more perfect throughout than any work of man could have been.

The next thing was to turn it to advantage. First of all, it was necessary to put all the precious material under cover. The machines and instruments had, until now, been deposited in ordinary tents. Norbert began by making a zig-zag road to the summit, the surface of which he levelled, to the extent of three thousand square metres. On this esplanade he erected, after the usual fashion, great buildings of one storey high, intended to serve for shops, laboratories, and dwelling-places. They were all made of pyrites that had been dug out of the mountain as the road went up. Roofed with the same material, they bristled like fortresses on the mountain-top. The workmen came from Darfour, close by, and the Cherofas tribe were also always willing to lend their aid. Masons were plentiful; and navvies learnt their business after only two or three days' apprenticeship. Thanks to the exertions of the interpreters, Mahbrouki Speke and Virgil, there were soon about twenty overseers to hurry on matters. This little
army of workmen was easily provisioned from the adjacent town of Berber, whilst their drinking water, brought by regular convoys of camels from the wells of Onadi-Teraib and Abou-Klea, a few leagues distant, was stored in zinc cisterns on the mountain-top. A whole village of merchants, moreover, had settled themselves down about two leagues off, in order to supply the needs of the travellers of the Luna Company.

Norbert had a tent of striped canvas placed at the door in the wall surrounding the buildings, and here he frequently sat to make up his accounts, which were often not a little complicated. From this vantage-ground he commanded a splendid view of ten or twenty miles in extent.

Beneath the plateau of Tehbali and its towering peak lay the arid sandy plains of the great Bayouda Desert. Here and there were visible small tufts of palm-trees, while, to the west, some white spots on the yellow ground indicated the villages of Central Darfour, and through the telescope the cupolas and minarets of Berber stood out on their own little green oasis. Northward, in the distance, wound the Nile, its well-wooded banks plainly discernible, and its blue waters shimmering now and again in the bright sunshine.

At seven o'clock on an October morning Norbert was, according to his usual habit, sitting on a camp-stool before his desk, when suddenly Virgil rushed up, out of breath.
"Visitors! Visitors, sir !" he exclaimed in an agitated manner.
"Visitors!" absently replied his master. "What will you say next?"
"Indeed, sir, it is quite true. There are ladies and gentlemen on horseback, and quite a caravan with them. I was in the wood-yard, half-way up the hill, when I caught sight of them, and I thought you would like to know it betimes. I could make out Mdlle. Kersain, with her little maid, and her father and Doctor Briet."
"You are dreaming!" replied the young savant, who got up, however, with alacrity, and put his glass to his eye.
"Where are your visitors now ?"

## "Look, sir, there they are, at the foot of the fifteenth zig-zag."

One glance through his spy-glass convinced Norbert that it was indeed the fact that Mdlle. Kersain, with her father and Doctor Briet, were coming towards him. So startling and unexpected an event had a novel effect upon the young savant, who was usually so careless about his appearance.
"And I only in my work suit," he said, with a perturbed look worthy of a Boulevard des Capucines or Pall Mall dandy. "I am not presentable in this woollen blouse and linen trousers! Quick, Virgil! We have time enough to put on more suitable things.

The worthy fellow ran off to his master's room, and speedily brought back fresh linen, European boots, and a straw hat. In the twinkling of an eye a complete transformation was effected. As he finished dressing, the baronet, who was only just up, appeared at the tent door. His morning costume was irreproachable, being, indeed, the sole occupation of Tyrrell Smith. . Sir Bucephalus might have come straight from his chambers in Curzon Street.
"The Kersains are coming up the road," said Norbert, simply.
"Really ?" . . .
"Look then!"
As the baronet put up his glass, Norbert said, "I am going to meet them. You understand how to do the right thing, my dear Coghill. I beg of you, order some refreshments; I am going to meet them!"...

Without waiting for an answer he hurried off; and Sir Bucephalus, only half pleased at the rôle assigned him, summoned Tyrrell, and gave his orders. It was good news to the model valet de chambre, and his clean-shaven face assumed an expression of satisfaction. His master paid no attention to him, however, and hastened after Norbert, arriving just in time to greet the travellers.
"What good wind blows you here ?" cried the young astronomer, shaking hands warmly. "I can hardly believe
my eyes that I really see M. Kersain, Doctor Briet, and Mdlle. Gertrude herself !" . . .
"It is true, however," said she, lightly jumping off her horse, with Norbert's assistance. "Do you think that I would have allowed my father to go to Khartoum alone?" . . .
"To Khartoum! Are you going there?"
"We are," answered M. Kersain, as he dismounted. "I have been appointed Consul-General in the Soudan, and naturally I take my daughter with me."
"Well," said Doctor Briet, "I must say that you seem tolerably backward here as regards news. You have not, seemingly, heard that at last Hicks Pacha has succeeded in concentrating his army at Khartoum ? After eight months' hard drill, it is thoroughly well disciplined, and the Mahdi has beaten his retreat towards the Great Lakes. . . . We shall hear no more of the Mahdi. He has evaporated into thin air, and the magic of his name and fame are over for ever. You know how firmly I once believed in the Mahdi? Well, I believe in him no more!"
"Neither do you, Consul," said Norbert, "since you are taking Mdlle. Kersain to your new post?"
"I scarcely believe in him now," replied M. Kersain. "I am certain that the pacification of the Soudan is only a question of time, and I expressed myself to that effect in my official reports, as there is a grand field for French commerce here. The minister saw the matter in the same light ; and I was consequently ordered to Khartoum, where Gertrude insists on accompanying me."
"Of course," exclaimed his daughter. "Am I not also an official personage? You must know that papa prides himself on these reports. I help him with them!....I own it is partly with a view to seeing Khartoum, and perhaps also to get a peep at the Peak of Tehbali. . . . But I had no idea it was like this. It is simply splendid!". . .

On first coming up to them the baronet had been rather grumpy about the trick Norbert had played him, but there was no resisting the gaiety of Mdlle. Kersain. She was, in truth, quite delighted to find herself
at Tehbali, and she did not try to hide her feelings. She could hardly contain her delight when they crossed the threshold of the observatory, and entered the large vaulted hall, that Tyrrell had transformed for the nonce into a beautiful drawing-room.
"We are," explained Norbert, " in the 'Hall of Motors,' as we term it, because all the conducting wires meet here, and are under the control of those two ivory knobs yonder, one of which in an instant makes the magnetic fluid act, whilst the other as instantaneously checks it. But we will show you all that by-and-by. You must have some refreshment now."

A well-appointed table stood laid out in the middle of the hall, which was carpeted with woollen stuffs, and furnished with broad divans of embossed camel skin. The walls were adorned with drawings of the heavens, topographical charts, and large lunar photographs. Through folding doors, at the end of the hall, one caught a glimpse of astronomical apparatus, a large globe, telescopes, electric batteries, and strange-looking instruments of all kinds. It was, in fine, quite a technical museum. One might have been in the Museum of Arts and Science at Paris, rather than on an isolated peak in the middle of the African desert.

When the travellers had done honour to their collation, they wanted to visit the works at once, in order to continue their journey that same evening. But neither Norbert nor the baronet would listen to this, and they now succeeded in convincing their visitors that they could easily put them up in the observatory for the night, Norbert and the baronet camping out under tents, a proceeding that involves no risk whatever in the Soudan.

Gertrude got up from the table to examine some of the charts hung on the walls of the "Hall of Motors."
"What is that?" she asked, looking attentively at a kind of map of the world, whose seas and continents she failed to recognize.
"That is a general map of the moon," replied Norbert, " or rather of the lunar hemisphere visible to us."
"How! a map of the moon!" cried Gertrude. "Has any one already been there ?"
"That was not necessary in order to draw up this map. It was quite sufficient to observe the moon on fine nights, and note all that happened on her surface. The geography of our satellite was easily verified by the concordance of a great many observations made by several different astronomers."
"But there are, I see, names on the maps: Sea of Tranquillity, Ocean of Tempests, Chain of the Apennines, Mountains of Dorfols. . . . How could they find out those names?"
"They are conventional appellations bestowed by the observers themselves, and by no means infringing on the rights of the lunar natives, if there are any, which I know not."
"And this?" said Gertrude, looking at another picture.
"It is a large lunar circus, similar to the circus of Gavarine in our Pyrenees, but much larger. It is termed the circus of Copernicus. This other is the lunar mountain of Gassendi. These, again, are a group of elevations discernible near the northern pole of the moon, and called the mountains of Eternal Light."
"And these volcanoes that might have been taken from our Auvergne Mountains ?"
"They are lunar mountains, or at least ancient volcanic craters, now probably extinct. Similar ones are found everywhere on the unfortunate moon, who must have been singularly torn and ravaged by her internal forces."
"Is it certain that they are craters ?"
"Quite certain, because there is no difficulty in determining their shape and dimensions, and even the height of their sides."
" How is that possible ?"
"Quite easily, by the simplest geometrical calculations."
"And is it certain there is no mistake; that they really are mountains and craters of such a height and shape?"
"Perfectly certain! Are you not sure without having
seen it, that the photograph shown you of a human face does truly represent its features ?"
"Of course!"
"Well, we can take photographs of the moon almost as easily as of a human being of flesh and blood. See! here is one of the chain of lunar Apennines taken by me a month ago. Can there be a doubt as to its being a photograph of one of a long chain of mountains looked at vertically, as might be from the car of a balloon ?"
"It is astonishing."
" Do you want another proof? Look at this drawing, so exactly resembling a volcanic island covered with craters; a bird's-eye view, as it were, of the Peak of Teneriffe. Is it not a striking likeness ?"
"So striking that it is impossible to doubt that the model must have been similar."
"Just so! It is by analogies and comparisons of this, kind that has been established the geography, or, I should rather call it with Greek scholars, the selenography of the moon (of $\Sigma \in \lambda \eta \dot{\prime} \nu \eta$ )."
"I see! But how did you manage to photograph an isolated chain? I could understand the whole surface, but a part?"
"You will have no difficulty in comprehending the matter if you bear in mind that a telescope magnifying 2000 -fold, brings our satellite within forty-eight leagues, so to speak, of the observatory. Now a globe 869 leagues in diameter, appears enormous so near: we can choose out portions and fix them separately on the sensitive plate. You know that a microscopic photograph can easily be enlarged and developed so as to show details previously invisible to the naked eye."
"How I should like to see all this myself!" . . .
"You shall see it, and not later than this very night ; the moon is at the full, and just fit for observation."
"What! will you really show me the Chain of the Apennines as it is here, and the Ocean of Tempests, and the Dorfels Mountains?" ...
"And a great deal more into the bargain."
"It is indeed marvellous !"
"You may call it marvellous if you like. For my part I think it much more marvellous that scarcely any one takes any notice of these wonders."
"Then," continued Gertrude, after a minute's silence, "you really think it possible that the moon should be like our earth, should possess a similar geological constitution, and have, like us, continents, seas, mountains, volcanoes?"
"It is not only possible, but probable, and, I may say, certain that such is the case. Do not forget that the moon is only a fragment of the earth, detached from her thousands or tens of thousands of years ago, at an epoch when our globe was but a nebulous ball turning on its own axis. The chemical elements of the lunar soil must therefore necessarily be the same as ours. At most, they may perhaps have formed different combinations, or may be differently distributed from the centre to the poles. But the analogical probability is in favour of their exact identity with the earth. This does not, of course, mean that life has manifested itself under the same forms-far from it! . . .
"The caloric and climatic conditions of the moon are, on the contrary, entirely different from those of the earth, by reason of her more restricted dimensions, her peculiar position, and the fortnightly alternations of heat and cold through which she passes.
"It is not only probable, but certain also, that her vegetables and animals are, or were, quite different from ours. I do not say anything about her atmosphere, which decidedly exists, I think, though it must be very rarefied, and has no analogy with that of the earth."
"Have you learnt anything fresh about the subject lately ?" asked Doctor Briet, somewhat ironically.
"Yes! I have learnt something fresh lately," replied Norbert, gravely. "What do you suppose I am doing in the afternoons and evenings ? I am gazing at the stars, as that is my business; and I have been able to take several observations in these clear skies. For instance, during an eclipse of the sun last August I verified the assertion of

Laussedat as to the rounded and truncated corners of the solar crescent; and several times I saw the lunar twilight spoken of by Schrœeter. These are all proofs of the existence of a lunar atmosphere. But still there are other phenomena, such as the non-graduation of the shadows cast by the lunar craters and peaks, that militate against this conclusion. On the whole I am inclined to believe that the moon has an atmosphere, but that it is so rarefied that human beings could not live in it."
"If that is so," cried the doctor, "good-bye to your plans!"
"That remains to be seen," replied Norbert. "We shall take precautions for either case. Should the atmosphere prove unbreathable, we shall try to substitute our own in its place; and if we do not succeed, then we will do without either of them!"...

## CHAPTER X.

## ONE VISIT AFTER ANOTHER.

THE visitors had been intensely interested in all they had heard as yet about the plans; but Norbert refused to tell them any more until they had rested. So, as soon as breakfast was over, every one was marshalled to the apartment he was to occupy at night, and took a siesta till five o'clock in the afternoon. This the hot climate of the Soudan rendered indispensable. Not until sunset would Norbert conduct his guests over his domain.
"I am going," he said, "to show you something very special, and that is not for the vulgar eye. But do not expect any extraordinary machines or cabalistic preparations. Everything here is of the greatest simplicity.
"This," he continued, preceding his visitors into the gallery beyond the "Hall of Motors," " is my own private observatory. You will find nothing here that you could not see at Paris, or Greenwich. There is a movable
cupola turning on its own axis, and following with this clock the apparent movement of the heavenly bodies. Here are telescopes, compasses, chronometers, barometers, thermometers, a glass case full of mathematical instruments -and that is all.
"On the right you see a large laboratory, with furnaces, vats, and reactionary agents. On the left is the depôt for chemical products, and also a most necessary store of chlorate of potassium ; and those great zinc boxes with straps round them, making them look like so many cocoa tins, are intended to be filled with oxygen, to enable us to breathe in any atmosphere, even under water, or in a vacuum.
" Further on is the store-room for cord, stuffs, and silks ; also balloons and parachutes of different sizes in case of necessity. Then there are the implements and instruments of the principal professions. Lastly, there are the provision stores, which occupy all the rest of the building. They contain preserved meats, tinned vegetables, wines, farinaceous food, captain's biscuits, dried fruits, \&c., \&c. Our cisterns, made of bolted zinc, cemented in the concrete, contain about twenty million gallons of water.
"But there is nothing particularly interesting so far. In a word, we are in a fortified castle on one floor, built of magnetic pyrites, and duly provisioned not only with the necessaries of life, but with all astronomical, meteorological, and aerostatic requirements ; also with everything needful to the researches of physics or chemistry, and materials wherewith to manufacture any article that may have been omitted. There is nothing remarkable here up to the present, except the complete autonomy of our domain; in case of an attack it could be as self-sufficing as a well-equipped ship, or a besieged town. To complete the simile we have the wherewith to defend ourselves, possessing side-arms, pistols, revolvers, two Gatling guns, and four quick-firing mitrailleuses of the Maxim pattern. . . .
"So much for the outward organization and the general precautions. Let us pass now to the technical works incidental to the enterprise."

He led them into a circular hall in the centre of the buildings. They saw only a large round black hole.
"This hole," said Norbert, " is simply a sounding well. I intend soon to have a lift here in order to get down to the bottom of the mountain in three minutes. I began to dig the hole soon after levelling the site on which stand the buildings, as I wanted to make sure of the geological structure of the Peak. It goes down vertically to the depth of 1600 yards, with a radius of two yards. In this way I got to the base of the Peak, and ascertained that it rests on a bed of sand, and is thoroughly homogeneous. I therefore resolved to make use of the magnetic rock as it is, instead of building an artificial mountain. The well can be put to other uses also, as you will soon see."
"You said something just now," remarked M. Kersain, "about a steam-engine, for the purpose of drilling through this vertical trench. Where are the steam-engines, and how did you manage to get the necessary fuel?"
"You have hit upon the only possible•drawback to our success," replied Norbert, smiling. "The want of fuel was indeed a difficulty. I will show you how I got over it by a contrivance that is the very turning-point of the whole enterprise."

They passed into a corridor leading to the broad circular passage between the buildings and the outer rampart. Here, in the open air, and exposed all day long to the tropical sunshine, stood several dozen large copper reflectors, shaped like truncated cones. Each apparatus had in the centre a boiler made of tempered glass, and a steamengine, whose slightest movement could evidently set in motion various conducting wires that stood arranged in readiness under a shed.
"This is the solar-heat condenser," said Norbert. "You see it in the perfection to which it was lately brought by its inventor, M. Mouchot, Professor of Physics at the Tours Lyceum. It can gather up the solar heat and utilize it in the service of commerce. I believe the inventor hoped that it would, in the first place, tend to facilitate the making of a railway across the Sahara desert. It has
already enabled us to bore our well, and, as you shall see when we get to the foot of the mountain, it kindles to a white heat the group of furnaces that fabricate large quantities of glass."
"Do you mean to say," exclaimed Doctor Briet, "that this copper funnel can develop sufficient heat to vitrify sand?"
"You shall judge fcr yourself," replied Norbert. "But meanwhile let me tell you that in this hot country we receive and absorb, on an average, 38 heat units ${ }^{1}$ a minute on a square yard of surface insulation. I have 2000 insulators, and each of them represents ten square yards, which means that I can freely absorb and utilize 760,000 heat units per minute, $45,600,000$ heat units per hour, and $456,000,000$ heat units in a day of ten hours. Such is the amount of heat placed at our disposal by the sun, and suffered to run to waste by the negligence of man!...
"This is our only heating apparatus. Your cutlets this morning were grilled by the solar-heat condenser ; the soup and roast meat will be cooked by the same process this evening. The cognac you put in your coffee is distilled by the solar-heat condenser, and in like manner the coffee was refined and infused by the same influence."
"But," said Gertrude, laughingly, "you are obliged always to cook in the day-time?"
"Yes, if we are foolish enough to suffer our store of heat to evaporate into space ; not so, if we take care to imprison it in a non-conductor, such as a woollen covering, or even a pot full of sand. Virgil does this very cleverly, I assure you!"
"It is marvellous !" cried M. Kersain. "This invention is certainly destined to be of great service in Africa!" ...
"Much greater than is thought," replied Norbert. "Remember this is a free and boundless force! . . . By the solar action alone it will henceforward be possible to sink artesian wells in the middle of the most arid desert, to get water from any depth, bring it to the surface, and make

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"There are twenty-five exactly like this one."
use of it as we will. . . . Railways can in future traverse the Sahara desert, and the whirr of busy manufactories wake up its silent echoes, while steamers plough the wave without need to trouble about finding fuel. The sun will do it all! . . . This conic-shaped funnel, once set eastward, the rest will go by itself; and what more easy than to set it so! The lever yonder enables the reflector to be moved backwards and forwards horizontally, while the toothed rack, by setting in motion two cogs, elevates or depresses it vertically. The contrivance is so simple that it could be learnt in five minutes by a child of seven, or a Polynesian savage, or even, we will say, by a monkey!"

Leaving the circular passage, they returned to the entrance gate, where saddle-horses stood ready to take the travellers to the foot of the mountain. They got there in half an hour, galloping past the camp of the navvies, consisting of tents, huts, and earthen cabins, and drew rein in front of one of the furnaces mentioned by Norbert.
"There are twenty-five exactly like this one," he said. "They surround the base of the Peak with a girdle of vitrifying furnaces. You see that the glass made is somewhat coarse and dull, but it is perfectly adapted for the end in view-to insulate the magnetic block which constitutes the Peak of Tehbali. The insulation will be effected by a vitrified layer of about 50 inches in thickness.
"'How will you manage to make this?' you may perhaps ask. In the simplest manner in the world-by pouring it round the base of the Peak. There is no lack here of sand, our chief constituent. The solar heat enables me to keep one hundred and twenty vitrifying furnaces in active work during twelve or fifteen hours a day. Each of these furnaces produces on an average two hundred cubic metres of glass that flows under the mountain as fast as it leaves the crucibles. By means of a horizontal tunnel to the centre of the pyretic peak communicating with the sounding well, we are enabled to make the flow continuous from the centre to the periphery. . . . As soon as the vitrified sheet of glass has gone quite round the centre the
operation will be completed, and the mountain entirely insulated from its sandy bed."
"How soon do you think this will happen ?" asked Gertrude.
"In about five or six months more of incessant hard work."
"That is a long while."
"It is rather long, especially for the controlling commissioners of the company," said Norbert, with a sly glance at Sir Bucephalus. "But so much the worse for them! . . . I will not leave anything to chance, and you may be quite sure that I am not going to hurry on matters just for the sake of shortening their exile!"
"Where are the other three commissioners ?" inquired the doctor. "We have not set eyes on them yet."
"They are up there in the quarters I assigned them. They spend their time playing at bézique, smoking, and drinking bad beer brought them from Berber. I do not see them once a week even, and I only allow them to put in their word when it cannot be helped ; such as, for instance, in the signing of contracts or cheques." . . .

Norbert did not say how Wagner, Gryphins, and Vogel had constantly tried to cross his plans with such open and acknowledged hostility, testified in a hundred ways, that he had been obliged to treat them as enemies, and to forbid them to go near the works or the observatory, or even the provision stores. For the last three months, indeed, they had been kept in quarantine in their own quarters in the left wing; and they were, moreover, warned that they would be shot dead on the least suspicion of treason.

Norbert would willingly have dismissed them back to Europe, but he was restrained in consequence of their position as financial controllers, appointed by the shareholders, which made it desirable that a final rupture should come from themselves. He therefore tolerated their presence at Tehbali, but gave them to understand well that he would not suffer any interference, direct or indirect, with his plans.

For their part, they took good care not to leave of
their own accord. They were quite determined to regain the control of the magnificent undertaking that owed its first inception to them. Norbert Mauny was, they considered, an interloper. They were therefore willing to put up with any affronts or inconvenience rather than give in.

Norbert got on capitally with Sir Bucephalus, who was most straightforward, and very good company moreover. The old rivalry between them revived only when its object, Mdlle. Kersain, reappeared on the scene. Their close fellowship in the desert had inspired the baronet with the greatest admiration of the fertile energetic genius and loyal nobility of character of the young savant. Sir Bucephalus felt it an honour to share in the enterprise, whatever might be the issue ; and he set himself to bear, with what patience he could, the monotony of his present life, aided by the powerful incentives of a natural curiosity as to the results of the singular adventure, and the distinction that it would undoubtedly earn for him on his return to London society.

A visit to one furnace sufficed to demonstrate the mode of operation in all, and the merry cavalcade therefore took the road leading back to the observatory.
"If I have understood your explanation," said M. Kersain, as they rode along, "you intend finally to magnetize the moon by means of the solar heat ?"
"Precisely so."
"Your special aim at present is to isolate the pyretic block of Tehbali on a rough sheet of glass interposed between the base of the rock and its subsoil of sand. . . . But what will be the use of this?" . . .
"I shall then have at my disposal an enormous mass of magnetic pyrite that I can at once convert into a magnet." "How?"
"Simply by means of the electric current that will dart through every part simultaneously. The cable conductors are already laid. They all meet like the cords of my dynamos in the 'Hall of Motors.' The dynamos, as I need hardly tell you, will be set in motion by the solar-heat condensers, which, no longer needed at the base of the Peak,
will be posted at intervals along the circular passage. ... When all the preparations are complete, and the very day and hour fixed, I shall only have to press one of the ivory knobs in order to establish contact. At that instant the Peak of Tehbali will become an immense magnet."
"And then ?"
"Then, irresistibly drawn by the additional terrestrial attraction, the moon will descend, and place herself at our disposal!"

The simple audacity of these words deprived every one of the power of speech, and in silence they continued their ascent of the mountain. The measured step of the horses on the magnetic rock was the only sound to be heard. The twilight was gathering afar, and the desert grew every moment less distinct under the advancing shadows ; whilst the last rays of the setting sun cast a golden light over the Peak, proudly rearing its head as if defying the crescent moon that appeared on the horizon.

It might be a foolish undertaking, but no one now thought it so. It appeared quite feasible, and, at all events, well worth trying. They all admired the energetic courage and the inventive genius of Norbert.
"What a difference," thought Gertrude, "there is between him and that young Englishman, who, although well brought up and amiable, is such a perfect nonentity! The one looks upon life and its incidents as a child would, in the light of an innocent diversion; whilst the other, in his manly perfection of vigour, has conquered the secrets of science, and can wrest the very forces of nature to his own use!"

A special interest was attached to the two ivory handles fixed on a frame of ebony in the Hall of Motors, for were they not to be, as Norbert had explained, the prime movers of the grand final act? Our travellers regarded them with the greatest curiosity. They were very simple ; just two knobs, marked A and B, encased in steel mountings. They were attached to a tablet similar to those used in telegraphy, and on it was also a kind of dial, and a large cogged copper
wheel turning in numbered notches, and set in motion by a crystal handle.
"You have explained the use of these handles," said Doctor Briet, "but what is this dial that resembles a mariner's compass ?"
"It is a magnometer that indicates the degree of tension in my magnet."
"And this cogged wheel ?"
"It is an instrument for the augmentation or diminution at will of the tension in the magnet, from the point o to 620 , which corresponds to the degree of saturation."
"So your magnet can not only develop immense force, but, when you will, you can reduce that force to $\frac{1}{360}$ maximum?"
"Precisely so, and quite easily, too, by stopping the cogged wheel on one of its numbered notches."
"One question more, and I shall be satisfied," said the doctor. "Supposing the sun failed you-say, in bad weather-your magnet would cease to act?"
"Not in the least. I will show you some electric accumulators that I have had made on a new system, which enable sufficient electricity to be stored up to maintain the magnetization during ten times twenty-four hours. The sun never hides his face in this country for more than two or three days together, so I have amply sufficient force." . . .

After dinner, which they took in the Hall of Motors, Mdlle. Kersain asked Norbert to show her the mountains and plains of the moon through the telescope. He explained them to her fully, and then turned the glass on Mars and Venus, and Saturn with his rings. Gertrude at last asked the question that had hovered on her lips ever since she came.
"Where is my star ?" she said suddenly. "You have not said anything abo ut it to me for a long while. Has it gone out perchance?"
"Certainly not, "cried Norbert. "It shines brighter than ever, and has its own place in the astronomical calendar under the name of Gertrudia, so kindly lent it by yourself.

Be assured that it is sailing safely and serenely on its course, and will revisit us at the right time. Unfortunately, it is not due at present, so that I must still postpone the pleasure of showing it to you."

After breakfast the next morning they were all in the drawing-room, when a most unexpected visitor suddenly entered, unannounced by either drum or trumpet. It was none other than the dwarf whom, a few months ago, they had seen in attendance on the Mogaddem of Rhadameh.

Without uttering a word, but with many gestures and salaams, he presented a message from the venerable ancient. Translated by Virgil, it ran as follows :"To our dear son, Norbert Mauny, most skilled in the arts and sciences, health and prosperity.
"Our servitor, Kaddim, is entrusted with this letter to inform you that, for the future, the remittance paid to us for the services of our beloved sons the tribe of Cherofa must be raised to the amount of a thousand piastres a month.
" Praise be to Allah! "BEN-KAMSA, "Mogaddem of Rhadameh."
Norbert had too much reason to congratulate himself on the fortunate results of his treaty with the venerable man to be very indignant at this fresh exaction. But it was essential not to act in financial matters without the cooperation of his delegated co-commissioners, so, excusing himself to his guests, and inviting the dwarf to take some refreshments whilst waiting, he sent for the three commissioners from their lair.

During the few minutes' interval every one noticed that the dwarf kept his eyes fixed on Mdlle. Kersain with an expression of profound admiration that seemed to show that he possessed at least a certain amount of æsthetic appreciation. So absorbed was he in his gaze that he scarcely noticed the entrance of the commissioners.

They came in awkwardly, in their usual way, bowing abruptly all round, and made no difficulty about ratifying the new arrangement proposed by the Mogaddem.

Suddenly the dwarf perceived the three as they stood at the table near Norbert, who was speaking to them. An instantaneous change passed across his countenance. The expression of admiration gave place to one of intense surprise and horror, as, with eyes starting out of his head, he stared at the commissioners. Rising hastily, he fled to the door without uttering a word or waiting for the answer he had to take back. The rest of the company looked out after him, but he had already disappeared, and they saw no more of him.

This strange incident was the subject of varied conjecture for the remainder of the day. The most likely explanation of his extraordinary behaviour seemingly was that he had bethought himself of some forgotten detail, and had hurried back with the intention of returning to fetch the answer to the Mogaddem. But the problem of his sudden disappearance was never solved, for no one had seen him go by on the road either to or from the Peak.

Very early on the following morning the party separated. The travellers resumed the route to Khartoum, their hosts conducting them to the foot of the mountain with many lamentations at their early departure. Sir Bucephalus devoted himself to M. Kersain ; he had an instinctive conviction that the study of the stars had not been propitious to his chances of success in his suit. As to Norbert, he could not understand why parting with Gertrude should be so unbearable when there was the hope of meeting soon again, either at Khartoum or at Tehbali.

## CHAPTER XI.

## THE BLACK GUARD.

Seven weeks had passed since the presence of Gertrude with her father and the doctor had lent unwonted animation to life on the Peak of Tehbali. Work had now resumed its regular and usual course; but Norbert was
disturbed in mind by a singular fact which he could not help associating with the visit of the dwarf of Rhadameh : the greater number of his Cherofa workmen had abandoned him one by one. Just before the dwarf came there were not less than eight hundred; now there were scarcely two or three dozen: the others had all departed under one pretext or another. The work did not suffer from these defections, simply because crowds of natives came from Darfour to replace the deserters; but it would have become difficult to go on with the enterprise had it depended on the aid alone of the Cherofa tribe.

On the other hand, the reports of Virgil and Mabrouki gave evidence of great disaffection among the navvies and glass-makers. For the first time in several months they were overheard conversing about the approaching advent of a new golden age, and the expected triumph of the faithful over the giaours, to be followed by a general massacre of Europeans.

Virgil, old soldier as he was of the regular army, treated all this bragging with supreme contempt, mentioning it only as a matter of duty; but Mabrouki Speke was evidently much disturbed. He had accompanied the first European explorers of the Upper Nile, and for nearly a year past now he had been Norbert Mauny's right hand by his prudence, conciliatory spirit, and thorough knowledge of the Soudanese temperament. Norbert showed his appreciation of his good services by often deferring to the old negro in the most flattering manner.

According to Mabrouki the Cherofas had a motive in deserting from the workshops of Tehbali : they must have been ordered to do so by the Mogaddem, and the affair was probably connected with the coming revolution in Suakim territory. Mabrouki added that no confidence was to be placed in the thirty or forty remaining Cherofas, especially a certain Aben Zegri, who had apparently great influence among them. To dismiss them at once would not be wise, as it might entail a complete rupture with their chief. But thev must be well watched, which would be his business.

He did not watch in vain.
Noticing one evening an unusual concourse of people proceeding towards the tent of the Cherofas, which was both large and lofty, Mabrouki took up his post unperceived outside the outer wall of the tent ; and, perceiving a little hole in the canvas, he enlarged it with his spear so that he could see all that went on inside.

The deepest silence reigned. The light of a smoky lamp shone upon fifty Arabs prostrate with their faces on the ground, and their arms stretched out before them motionless, while their white draperies covered them as with a shroud.

At first Mabrouki thought he was assisting at their evening prayer; but in an instant he beheld one of the Arabs rise and advance to the middle of the circle of his co-religionists. It was Aben Zegri. In a loud voice he addressed a brief invocation to the holy prophet Mahomet, and then he broached the subject of the meeting.
" Men of the tribe of Cherofa," he said, "beloved children of Allah, the day of your deliverance is at hand. . . . The Lord loves you. At your birth the winds were tempered, the sea lost its fury and became soft as oil, and the moon was near the full. Allah, to try you, has subjected you to the hated yoke of the giaours. But soon you shall rise in triumph like unto lions on the mountain tops, and you shall crush them all in your iron grip!" . . .

At these words a frenzy of enthusiasm ran through the assembly. Stifled curses were heard on every side, whilst angry eyes gleamed from under the turbans. Aben Zegri seemed lost in thought for a minute. Then lifting up his face he resumed as follows, in a slow, measured voice :"What, O Lord, requirest Thou from Thy sons? . . Lead them by the hand. Go in front of the tribe. Be unto her the ray coming from the East, and the star that shines over the sea! . . Thou art merciful: Thou hast raised up the holy prophet promised to the faithful for thirteen centuries past. He hath appeared in the midst of the darkness. He hath appeared on the isle of Naft like to the lotus flower on the waters of the Nile. His name is
the Mahdi (the sublime one). He has wept over the sins of men. His dwelling was in the depth of a well, and from the bosom of the earth his prayers have risen like incense to the throne of Allah!... O thrice-blessed tribe, thy reign is at hand." . . .

A flattering murmur greeted these words, and as if spurred on to renewed fervour by the sound, the orator continued:-
"I behold thee, O Mahdi, on the field of battle. Thy march is swifter than the flight of the falcon. One town after another falls into thy hands: the vanquished kiss thy sacred feet in vain, for thou art implacable and doomestall to perish. . . . Hicks Pasha commanded the armies of the Khedive, and led them against thee, aided by the spirit of darkness. He had taken Duen and El-Obeid, and was pursuing thee towards the south. . . . Hearken, children of the tribe of Cherofa, to what Allah, the exterminator, has done for you! He has sent the Mahdi to Kasghil, and has surrounded the giaours with a circle of the faithful: for three whole days have the sons of the Koran done the work of justice, and all the giaours have perished! . . . Not one has returned of the eleven thousand men who composed the army of Hicks Pasha!"

The Arabs stamped and screamed with enthusiastic joy at this news. Aben Zegri tried to calm the tumult, saying,-
"I, the unworthy servant of the Mahdi, have summoned you this evening to tell you that the hour approaches. . . . But we must be careful not to arouse the suspicions of the enemy. . . . We must await the signal which cannot be long in coming now. And above all, brethren, let us pray and thank Allah for his benefits." ...

All the Arabs resumed the attitude of Mussulman prayer, and Mabrouki thought it a propitious moment to creep off. He hastened to inform Norbert of what he had heard.

At first it seemed difficult to believe in the complete extermination of the Egyptian army commanded by Hicks Pasha. But it was a bad sign that it should have given no evidence of life, and have been utterly silent since the
departure for the south two months back. Soon it was no longer possible to doubt the truth of the catastrophe. Eye-witnesses testified to it. The news was brought by camel-drivers and merchants from Kordofan, and no one doubted it at Berber. Norbert himself heard it from the lips of a workman recently employed in the wood-yard, who had seen the plain of Kasghil covered a month previously with the decapitated corpses of the Egyptian army. The rifles, guns, and ammunition were all in the possession of the Mahdi, who had not spared a single soldier.

The defeat was certainly a most serious matter, for setting aside the ferment it caused among the workmen of Tehbali, there was but too good reason to fear that it would at once increase the fame of the Mahdi a hundredfold, and embolden him to return northward and march upon Khartoum. This was the universal expectation at Berber, where Sir Bucephalus went to find out the latest news. The Egyptian garrison there were only waiting for the order from Cairo to evacuate the place and descend the Nile. It was said to be the same at Khartoum. But many doubted whether the retreat would be possible. Khartoum was far from the Egyptian frontier, the means of transport difficult, and the intervening population were uncertain friends when not openly hostile, as was the case sometimes! . . . It needed but a spark, a rumour that the Mahdi had marched to the north, to set the whole country aflame.

Norbert, however, would not despair. He had so often in the past year heard these sad forebodings ! . . . Would he ever indeed have embarked on the enterprise had he listened to what was told him at Suakim? . . . He was on the brink of success. . . Two or three months at the most, and everything would be ready for the final experiment. Was so much labour and expense to be thrown away because of these fears, which might after all prove groundless? No! he could not think of it even. One serious anxiety weighed upon his mind, the knowledge that Gertrude and her father were exposed to imminent
fanger. Khartoum, once so secure, was now entirely at the mercy of the Mahdi, between whom and the capital lay but the bare desert ; where heretofore for more than a hundred leagues towards the south the position had been held by a numerous army, officered by Europeans.
"But after all," . . . said Norbert to himself, " matters move slowly in the Soudan!... The Mahdi may be a year getting into marching order ; England will soon overtake him if, as is likely, she intends to avenge the honour of her arms and the blood of her sons. . . . In any case, if it is decided to evacuate Khartoum, M. Kersain can always get out with his daughter. . . . I must at all risks hasten to complete my undertaking as soon as possible!"

He expedited the works, and stimulated the men to fresh exertions, doubling the gangs of workers.

One morning Costerus Wagner, Peter Gryphins, and Ignaz Vogel asked to have an interview with him, in the presence also of Sir Bucephalus. Norbert ordered them to be admitted.

Costerus Wagner, on entering, held out a blue paper to Norbert, saying, "This is the news brought us from Berber with the cask of beer."

Norbert read as follows :-
"The Egyptian army, carrying on operations to the south of Suakim, has been completely routed at Tokar by Osman Digma, a lieutenant of the Mahdi. The Suakim-Berber route is now in the power of the insurgents."
"It is disastrous," said Norbert; "but the Nile route is still free."
"Yes," answered Costerus Wagner in a significant tone ; "and all who value their lives had best follow that route at once."
"Are you come to announce your approaching departure ?" calmly replied Norbert.
"Our own departure, and yours also, I presume," said Costerus, "for surely you cannot now think of going on with the enterprise!"...
"Why should you make such an assumption, pray?"
"Because if you do not at once give it up, the workmen
will stop it to-morrow. Do you not know what is being said on all sides-in camp, in the tents, and workshops? . . "That we are all to be massacred at a given signal.". . . "We have heard that for the past year, and the signal has not been given yet!" said Norbert.
"I appeal to you, Sir Bucephalus," asked Costerus; " do you not think it time to give up this risky venture?"
"My wager upon the result prevents my entering upon so delicate a question," prudently replied the baronet.
"If you think it right to go, gentlemen," cried Norbert, "pray do so!... I cannot keep you by force, and I should even make it my business to facilitate your departure."
"You know well enough that we cannot leave the interests of the Company in your hands!" muttered Costerus.
"In that case, gentlemen," replied Norbert coldly, rising to intimate that the interview was at an end, "I can only trust that you may turn out false prophets. For my part, I do not intend to move!"

The three commissioners retired crestfallen, and Norbert remained alone with the baronet, who was smiling.
"What are you going to do ?" asked the latter. "For we must own there is some truth in their words."
"What am I going to do? I really do not quite know. All that I can say is, that I am certainly not going tog give up my enterprise to please either those gentlemen or the Mahdi!"...

He began to walk up and down, and, touching a call-bell, summoned Virgil.
"Fetch Mabrouki. I want to speak to him."
The old guide soon made his appearance.
"Think you," said his master, "that it would be possible to pick out a hundred honest fellows, and form them into a trustworthy battalion of sharp-shooters?"

Mabrouki shook his grey head.
"I would not advise it," he said. "There are not a hundred, and perhaps not even one to whom it would be safe to give a rifle."
"The deuce!" said Norbert. "This complicates matters.

We shall be obliged to form ourselves into a garrison! . . Not that I mind the notion, but it will be rather fatiguing for only four men."
"There is perhaps one way of getting good soldiers," said Mabrouki, after a minute's deep reflection. "We might try to secure the late guard of Zebehr, if the Mahdi has not already done so."
"Of what does this guard consist?"
"It is a corps of coloured young men from the Great Lake country, whom Zebehr, the king of the slave merchants, had armed and equipped for his own personal service. On the ruin of his commerce, and his own detention by the Government as prisoner at Cairo, where he had stupidly gone, the guard was disbanded, and is now at large. I have no doubt that they would willingly take service."
"Think you that these men are capable of fidelity ?"
"I am certain of it. They are splendid soldiers. There is a whole village of them in the oasis of Gandara, two days' journey from here."
"Well, Mabrouki, I give you full powers. Go at once and enrol a hundred picked men on what you consider fair conditions, and bring them to me."
"They shall be here in four days, sir," . . . said Mabrouki.

The three commissioners also took counsel together, not, we may be sure, without a great consumption of tobacco and half-pints of beer.
"You see it is impossible," said Costerus, "to come to terms with that Frenchman. We must take strong
"How ?"
"I will manage it. We are all agreed, are we not, upon one point-that it is impossible to remain here ?"
"Most decidedly."
"It would never do to go and leave the Frenchman master of the situation after all our trouble and the exile of a whole year, neither can we very well carry him off bodily. It would excite suspicion were he quietly to dis-
appear. There is only one alternative-to drive him away by instigating the workmen to revolt. It would not be very difficult, judging from certain indications."
"But should we not be the first victims of the affair ourselves?"
"No, not if we are careful to let the Arabs know that we sympathize with them. . . . You are aware that I have been studying their language for a year past ; it is, indeed, my only amusement in this cursed country."
"Yes, yes!"
"Well, I vote that we don the Arab dress from this day forward, and go among them in the evenings. I will let them know that we have embraced their creed, and that we are with them in everything. . . . I must be a crassed idiot if I do not turn them round our fingers in eight days' time!" . .
"It seems a good idea, and we may as well try it."
"We will, this very evening."
"And if it succeeds?"
"In less than eight days the workshops will be deserted. We shall make our way to Berber, draw up an official report, and return in triumph viâ the Nile, first to London, and then to Melbourne. Should the Frenchman refuse to follow us, the Mahdi will soon rid us of him, or else the shareholders will, I will answer for it, or my name is not Costerus Wagner!"
"Costerus, you are a brick!" exclaimed both of his comrades, as they resumed their pipes, laid aside during the discussion.

Four days went by without any fresh event. But Virgil fancied that the navvies seemed more indolent and insubordinate than usual. He modestly set it down to the absence of Mabrouki. He had also been rather surprised one evening by meeting three Arabs, wrapped in large burnouses, coming down the mountain towards the village, apparently from the observatory. Norbert also wondered at, but could not explain the circumstance.

At length Mabrouki returned. With his habitual prudence, he had encamped his recruits three miles from Tehbali,
wishing Norbert to inspect them before they were definitely engaged. The young savant and Sir Bucephalus set off at once.

It was about six o'clock in the evening. The negroes had just finished their frugal repast of roasted maize, and, seated in a circle, were singing to the accompaniment of the tom-tom. Well-grown, athletic young men, supple as reeds and strong as lions, they were evidently the very flower of the country from which Zebehr had torn them in their infancy. They wore drawers of panther-skin, and camel-skin helmets, and were armed only with a buckler and a bundle of spears.
"Where is the chief?" asked Norbert, as he came up to them, Mabrouki having duly proclaimed his name and title.

A young negro more richly accoutred than the rest came forward.
"I am Chaka, the black pasha of the Great Lakes," he said, with dignity.
"Art thou and thy men disposed to enter my service?" asked Norbert.
"We are, and you will find us good and faithful soldiers. Mabrouki has fixed the terms. You may rest assured that we shall do our duty."
"The matter is arranged, then. Mabrouki has spoken well, and rightly."

Chaka gave an order to his troop, who came forward one by one and bowed respectfully to their new master. The young negro chief then took Norbert by the hand, which was, luckily, gloved, on account of the mosquitoes, and, carrying it to his lips, he spat upon it ${ }^{1}$ before any one guessed his intention.

Norbert stood amazed ; but, luckily, the affectionate look the young chief gave him reminded him that the performance was the height of courtesy, and he was therefore careful to return the politeness with usury. This delighted the negro and his troop, who all shouted frantically, -

[^1]"Great chief! . . . great chief! . . . We will always remain with thee! . . . Always!... Always!" . . .

Chaka and his men then shouldered their arms and baggage, and followed their master.

They proceeded towards the village. As they approached it, Mabrouki thought he saw some commotion near the tent of Aben Zegri, and, suspecting a meeting like the previous one he had witnessed, he proposed that Norbert should take a by-path and go behind the tents in order to find out what plot was being concocted. The young savant consented, and, calling a halt to his black guard, he went on in front with Sir Bucephalus and Mabrouki.

What was his surprise,'on drawing near the tent of $A b \in n$ Zegri, to hear a voice that he recognized as that of Costerus Wagner speaking Arabic to a numerous assembly! He knew the language sufficiently himself to be able to follow what was being said. Peeping through a hole in the tent he saw that Costerus was clothed in a wide burnouse and wore a turban; and Gryphins and Vogel, similarly attired. stood among the crowd of listeners.
"Men of little faith," declaimed Wagner, " is it thus you compromise your eternal salvation? You are working for an infidel, and on the day of justice the Prophet will drive you away from before his face. Know you not the aim of him whom you serve? . . He desires to overturn the eternal laws of nature. Allah suspended the Crescent in the heavens as a sacred symbol to his children. . . . The impious Frenchman wishes to tear this sacred sign out of the firmament, and bring it to earth to be trodden under foot."

An exclamation of amazed anger burst from the crowd of Arabs.

Costerus Wagner resumed his discourse with renewed vehemence; but Norbert had heard enough. Hastening back to the spot where he had left the black guard, "Chaka," said he to the chief, "thou hast sworn to be faithful to me. Now is the time to keep thy oath. . . . Thou must accompany me with thy men, surround a tent, and seize upon the persons whom I will point out to thee."
"When the master speaks, Chaka obeys," said the negro.
He made his troops take up their arms and march in two lines, one in front and the other behind the tent of Aben Zegri.

This skilful manœuvre was most successful. Ten minutes later Costerus Wagner, Peter Gryphins, and Ignaz Vogel were bodily carried off by six sturdy negroes, and brought prisoners to Norbert. The latter ordered them to be kept under arrest, and closely guarded, until such time as he could legislate concerning their fate, and lay the facts of their treason before the Company. Close by stood a glass foundry, consisting of three large, spacious halls that were of no further use since the vitrified sheet had spread to the bottom. This was to be their prison, and Virgil, named commander-in-chief of the black guard, placed sentinels at the door.

Norbert was now at rest as to any possible plotting at the foot of the Peak. He had a sufficient force in hand to put down revolt, and the works could proceed without fear of interruption. But a new anxiety arose. What would become of M. Kersain, and to what perils would not Gertrude be exposed, if the army of Hicks Pasha was in truth annihilated, and the Mahdi marching on Khartoum ? These thoughts haunted him throughout the busy day, and disturbed his rest at night. At last he came to a sudden resolution.
"Sir Bucephalus," he said, "could you replace me for a few days if I were to delegate my power to you in order to carry out what I consider to be a sacred mission?"

Sir Bucephalus had no misgivings. He knew Norbert too well.
" Dispose of me," said he quite simply.
"Well, I shall leave you here for a week, in order to go and warn our friends at Khartoum."
"Very well," was the reply.
Norbert started next morning.

## CHAPTER XII.

AT KHARTOUM.

AT the ordinary rate of travel, it would have taken four days to reach Khartoum from the Peak of Tehbali. But Norbert, burning with impatience, got over the ground in forty-eight hours. On the second day after his departure he saw in the distance the flat roofs and minarets of the "queen of the Soudan" rising amid palm-groves from the level plain at the junction of the Blue and White Niles.

During his rapid ride he noted many evident signs of panic and disturbance. Parties of armed men came and went on both banks of the river. Families of emigrants hurried by, bearing their valuables with them. From all quarters troops of camels loaded with grain, tents, and household utensils passed along on their way to take refuge in the town. They were followed by women, old men, and children, all hollow-eyed and melancholy, with wayworn feet bruised and bleeding. As he drew nearer to Khartoum, sadder and sadder grew the unmistakable signs of the hurried flight of a whole people. It was a regular rout cf terror-stricken victims, all hastening to seek refuge behind the ramparts of Khartoum. One and the same cry came from each group of wan, emaciated sufferers,-
"The Mahdi! . . . The Mahdi is coming!"
"The Mahdi! . . . It is always the Mahdi! Have you ever seen him, Mabrouki ?" asked Norbert, impatiently.
"I knew his uncle very well; he was a carpenter at Chabakah, opposite Sennaar, and I recollect seeing the child there, who was at that time apprenticed to his uncle," answered the old negro. "He got more kicks than halfpence then, for he was a very bad workman. But I have only seen him once since he became famous. He is a man of about forty, of medium height, and excessively lean. He is habited like a dervish, and behaves like one. I do not think he is any better than others. His uncle could never make anything of him, and I am convinced he does not know how to read now any better than when he was at
school. But there never was his equal in reciting verses from the Koran, and performing feats of strength and magic. This was the secret of his great influence. Would you believe, sir, that he actually spent years in a cave, dug by his own hands, on the island of Abba, where he passed the day and night in fasting and prayer? . . . Little by little he earned a great reputation for sanctity, and people came from all parts to consult him, bringing him rich gifts and offerings. He grew wealthy, connected himself by marriage with the most influential families in the Soudan, notably with the Baggara, the great slave-merchants ; and one fine day he styled himself a prophet sent by Allah to continue and complete the work of Mahomet."
"Then," said Norbert, " you simply look upon him as a charlatan?"
"I scarcely know what to call him. He may possibly believe in his own sanctity and divine mission. There is, moreover, a great substratum of truth in what he says to incite the tribes against the foreigners. This land has certainly no reason to rejoice in the Egyptian control. Every one has had more than enough of the bashi-bazouks! $\therefore$. So it is not astonishing that the Mahdi should be listened to when he promises to drive them out of the country. It must be borne in mind, too, that he belongs to the powerful order of ghela-ni dervishes, among whom he has for several years held the rank of Provincial in the territory of the Upper Nile. This alone secures him an immense prestige, and the veneration, if not the passive obedience, of every true Mahometan."
"Consequently he has, you think, a great chance of ultimate success?"
"The greatest chance. I should be very surprised if he were not master over all the Soudan within a month. He has only to hasten on to Khartoum, and the thing is done."
"But Khartoum can defend itself!" exclaimed Norbert, pointing to the ramparts whose slopes were to be seen in the foreground. "She has arms, and plenty of provisions, and a large body of troops, besides the European popula-
tion, and all these refugees, who do not seem to be very attached to the Mahdi, judging from their haste to fly from him."
"Khartoum might be defended," answered the old guide, shaking his head; "but the will to do it must be there, and likewise some energetic and resolute man must take the lead. Khartoum has neither the one nor the other. Hence, if the Mahdi comes at the head of his faithful, the gates will open of themselves, as you will see."

Some minutes later Norbert rode through the eastern gate, and was struck with the indolent, down-trodden, dirty aspect of the Egyptian sentinels. The state of the town itself did not seem any more promising, and it was difficult to believe that the miserable suburbs and sordid streets could be part of so rich and populous a town. Khartoum may be termed the key of the Soudan, owing to its admirable situation at the confluence of the two Niles, which has made it the chief mart for the grain and ivory commerce. But, like all African cities in the interior, the ornamental is sacrificed to the useful, and the houses, badly built of unbaked bricks, are surrounded by a little earthen wall. There are but five or six respectable edifices: Government House, the mosques, and the French Consulate.

Norbert repaired to the latter without delay, leaving Mabrouki and his camel-drivers on the parade-ground. M. Kersain was in his private office with his daughter.
"What a delightful surprise!" he exclaimed, on seeing his young friend.
"You are just in the nick of time, for we were dying of ennui!" said Gertrude.

Norbert thought her more charming than ever, but a little pale and worn withal.
"In that case," he said, pressing warmly the two hands held out to him, "I trust I shall have no trouble in persuading you. I have come on purpose to carry you both off with Doctor Briet to Tehbali or Berber, and thence to Cairo viâ the Nile."
" I could scarcely go to Cairo at this crisis without special leave!" replied M. Kersain. "But perhaps we might go
to Tehbali. My daughter and I are rather tired of Khartoum, and all that is going on here now is, I assure you, enough to make the strongest man ill."
"You have no idea of the cowardice of this people!" cried Gertrude with flashing eyes. "Civilians or military men, they are all alike! . . . Would you believe it? They already talk of capitulating, without the semblance even of resistance, and before even the wretch of a Mahdi has dared to demand it!"
"The demoralization and terror are universal," said the consul; "it is a thorough panic, and chiefly among the soldiers. Who would have thought such a state of things possible in a well-fortified, richly-provisioned city, abounding with ammunition, and possessing a garrison eight thousand strong, in addition to its fifty thousand inhabitants and twenty thousand refugees ... I myself am no soldier, but with such elements of defence I would undertake to hold out a year against all the Mahdis in the world!"
"Have you told the governor so ?"
"I never tell him anything else. But he is like the rest, and will not listen. . . . When I tell you that we have a fleet of fifteen steamers here on the Blue Nile! There is no lack of guns to mount them with ; and this surely would more than suffice to defend the two Niles against the Mahdi and his troops! But no! What, think you, is the cry? Not to put the boats in fighting order, but to draw lots among the Europeans, civil and military, as to who are to escape by means of the steamers !"
"All this must make it very disagreeable for the foreign residents?"
"More painful by half than you have any idea of. We have to put up with the consequences of the mistakes of others, and take our share of danger and suffering without any corresponding part in council or field of action. To represent civilization, and yet be impotent to strike a blow for her: to see what could easily be done, and have no power to give orders: this is what we have to bear!... What would you have? A man is needed at

Khartoum in this juncture, and men are scarce, especially in the Soudan."

The conversation then turned upon the works of Tehbali, and their progress since October. When the dinner-hour approached, Gertrude left them in order to put on her evening dress. Alone with Norbert, M. Kersain poured out his whole fatherly heart, keeping back none of his terrible fears as to the near future. He could scarcely repress his emotion whilst speaking.
"My dear friend," he said, "I am in a most terrible position. I could not speak plainly before Gertrude, but I am firmly convinced that we are on the brink of a great catastrophe. Arab fanaticism is now unchained, and not a single European will be permitted to leave Khartoum alive. I could not, as you know, leave my post at such a time There are other Frenchmen here with whom I must cast in my lot. . . . But I would give anything in the world to know Gertrude safe; for it is unbearable to think of her being exposed to the horrors of a siege in case resistance is made, or to the tenfold greater horrors of an Arab invasion should the town surrender or fall. Besides these dangers, there is the climate, which, contrary to my expectation, does not agree with her ; indeed, she is fading away before my eyes. . . . But how, on the other hand, can she go without me? It is quite useless to speak of it-she would never agree. . . O Oh, my dear friend, I cannot tell you how it all unnerves me!"
"I know it," answered Norbert, warmly pressing his hand. "I have come here on purpose to put myself at your disposal in these deplorable circumstances."
"I feel that you thoroughly sympathize with me, and this consciousness has enabled me to pour out my heart to you," said the consul, pacing up and down the room in an agitated manner. "But what is to be done? . . What can be done? I ought not, and I will not leave Khartoum at this crisis; and there are, on the other hand, a thousand considerations concerning her health, her life even, why Gertrude must not remain here. . . . What am I to do ?" "You might come to Tehbali with her, ostensibly for a
few days, and contrive to gain her consent to your return (if you must come back here), leaving her under our care, with the doctor and her little maid."
"Yes," said the consul, "it is a good idea, worthy of your good heart! But, in the first place, I would not leave Khartoum now, not even for a few days; it would not become the representative of France. And, secondly, even if I were willing to go, would it be fitting to confide my daughter to the care of two young men, whom I sincerely esteem indeed, but who are not in the slightest degree related to her? . . . I fear it is not feasible, alas ! . . . not even in the desert. . . . Do not misunderstand me, though," continued the consul, noting the look of deep disappointment on Norbert's countenance ; "it is not that I object to you personally. If I had only to consider my own feelings, I would entrust her to you in the fullest confidence. But we have to think of the opinion of the world in these matters."
"Consul," said Norbert with emotion, "these are exceptional circumstances. Would you entrust Mdlle. Kersain to the care of her betrothed ?"
"To her betrothed?" replied the consul, standing still in surprise. "I don't know. . . . Yes, of course I would! . . . It would be unusual, certainly. However . . . But how do you mean ?"
"Do you think," pursued Norbert, "that I could ever have a chance of being accepted in that capacity by Mdlle. Kersain and yourself?"
"It is difficult to know what is passing in the heads of young girls," said her father, smiling genially. "But, as far as I am concerned, I may at once say, my dear fellow, that I should give my cordial consent to such a proposal."
"I have no fortune," said Norbert; "or, at least, the little that I possess is staked in a very hazardous enterprise." . . .
"It matters little, my dear friend; that is not the point. You have a name and a scientific position that quite counterbalance the slender dowry of my daughter. ...

But I am quite ignorant of her own sentiments on the subject."
"She does not like me!" cried Norbert, discouraged already. "I might have seen it! . . . Oh, that I had been better able to express my sympathy and my admiration!" . . .
"I have not said that you are displeasing to her," interposed M. Kersain. "Why are you so ready to jump at conclusions ? . . . I was about to add that I have made a point of not influencing my daughter's choice, and so my consent depends on hers. There is nothing easier than to find out the truth of the matter this very night, if you like."
"Oh, no: not to-night, pray!" said Norbert, with a nervous precipitation strangely at variance with his usual firmness. "And," he resumed, "you will do me a favour by not speaking to her. . . . Leave me this privilege."
"Very well. It is scarcely in accordance with French usages; but I cannot blame you, since you have spoken to me first. I will call Gertrude down, or leave her with you when she returns to the room."
"No; please grant me a last favour!" said the young man in evident trepidation. "Let me wait a little longer.". . .
"Wait? . . . I do not understand you now."
"I will explain," he resumed, in a somewhat firmer tone. "I am afraid to risk what little chance I have by too great hurry. Could you but know what her consent would be to me! The happiness of my whole life depends upon it! But she scarcely knows me as yet! Let me have time to prove my devotion. . . . If I were to speak now and encounter a refusal, it would be almost impossible to carry out our plans for her safety." . . .
"But how do you mean to manage, then?" said the consul, slightly disconcerted. "On the one hand, you will be bound in honour by your words to me; on the other hand, my daughter would be free. . . . I do not call that just to yourself."
"Well, what matter? . . . I am bound now for ever.

The chief point is, that you should make use of me to save that precious life, and let me have time to gain her love."
"I see," said the consul, smiling, "that learning and romance are still compatible. Well, be it as you wish! I give my heartfelt consent, and I trust that my daughter will know how to appreciate this chivalric devotion. . . . But our difficulty is not solved. How are we to persuade her to go without me?"
"Doctor Briet might help us."
"How?"
"By insisting on an immediate departure and a prolonged absence from Khartoum. You might return, if duty calls you back." . . .
"Perhaps you are right. We will discuss it with the doctor to-night or to-morrow."

Suddenly a great noise arose in the street. Norbert and the consul were hastening to the terrace to see what had happened, when the door burst open, and Fatima rushed in, breathless and frantic, exclaiming,-
"General Gordon! . . . General Gordon is coming ! . . . The whole town are gone to receive him!"
"General Gordon indeed! Have you lost your senses, little idiot?" said the incredulous consul.
"The town criers are calling it out, and every one says it is true !" said Fatima.
"Impossible! . . . General Gordon without an army, without giving any notice of his approach! It is impossible!"...
"Look then!" said Fatima impatiently. "See for yourself!"

They went on the terrace, and Gertrude came out almost at the same moment. Crowds stood on neighbouring balconies, at the windows, and on door-steps; whilst in the street a great mass swayed to and fro, gesticulating and vociferating at the tops of their voices, as they all pressed on in one direction.
"Can it possibly be General Gordon ?" mused the consul. "What an unexpected whirligig of fate this new factor will be in the problem! I greatly fear, though, it is
but a false hope that will serve to deepen the general discouragement!"

Suddenly, a tremendous clamour was heard. From the end of the street paced slowly a solitary camel, ridden by a blue-eyed, fair-haired man of short stature, wearing the uniform of a commander-in-chief. Every arm was stretched out to him as he advanced, every knee was bent before him, and a whole people shouted as with one voice,-
"Hurrah for Gordon!... Hurrah for the hero! Hurrah for our father, the saviour of Kordofan!"

The vision passed by. The General proceeded to Government House, where he dismounted and took up his quarters as if he had only left the previous evening, instead of four years having elapsed since he gave up the post, that now, in the hour of danger, he came to resume.

Nothing could exceed the wild enthusiasm of the inhabitants. They cheered incessantly, and embraced each other with tears of joy.

The exultation could not have been greater if a whole army had marched to their relief, instead of a solitary man on a camel appearing suddenly on the scene as if descended from heaven. The imminent peril of the hour was forgotten. The Mahdi was no longer feared. Gordon had come, and all would be well. Khartoum could breathe at last.

In the evening the town was illuminated. General Gordon held a reception of the consular body, the authorities civil and military, and the chief inhabitants. He expressed himself as confident of holding out against the Mahdi ; announced that the town would be put into a state of defence, discipline restored, and the moral tone of the troops raised. He had come, he said, to pacify the Soudan in the name of the English Government. In a few days' time a British army would ascend the Nile, or else taking the insurgents in the rear near Suakim, make a speedy end of them.

Hope revived in every breast at these consoling assurances. The consul alone was not so easily convinced.
"I was saying only to-day that a man was needed," he remarked, as he rejoined Norbert at the gate of Government House. "The man is here. But I much fear that he is very insufficiently supported. All will be well if the English army he promises comes in time. Who knows though whether it will come at all, for Khartoum is a long way from Cairo, especially for a European army! . . . Well, well ; we shall see.
. . . "At all events," he resumed, after an instant's silence, "this sudden transformation scene affords us a chance of persuading Gertrude to go without me. Let us make hay then while the sun shines, with the help of my brother-in-law." So saying, he and Norbert paid a visit to the doctor to invite him to dinner, and between them they hit upon a little dramatic ruse that was carried out the very next evening at the Consulate, as follows:-
"I accept your invitation gladly, Mauny," said the doctor, as he sat down to table ; "it will be a change to spend eight days at Tehbali."
"I only wish that my daughter and I could accompany you," remarked the consul. "It would do us a world of good to have a holiday, besides the pleasure of seeing how the works are going on. But unfortunately we must not dream of it, for although our minds have been set at rest concerning the safety of Khartoum by the arrival of Gordon, and the measures he proposes to carry out pending the advent of the British army, I must remain at my post in order to keep my Government informed of the current state of affairs."

A shade of disappointment passed across Gertrude's fair face, but she said nothing.
"It is most unfortunate," said the doctor; "for my niece ought to have change of air at once, and a little trip to Tehbali is just what she needs."
"How can I help it?" said the consul with a sigh. "Duty before everything! It is absolutely impossible for me to leave Khartoum now."
"Perhaps we can make a compromise," said his brother-
in-law, "between duty and health. When do you think you might be able to come to Tehbali ?"
"In about a fortnight at latest."
"Well, why not trust Gertrude and her little maid to my care ? Let her come with me to Tehbali, and get back the roses in her cheeks as soon as possible, so that you may find her quite well when you join us!"
"Oh, uncle," exclaimed Gertrude, "I should not like to leave my father ?"
"It is not a question of what you like, my dear child, but of what is good for your health," said her uncle in his severest tone.

All eyes turned to M. Kersain.
"I rather like the plan," he said. "I should have my mind freer for business, which would, I feel sure, make it possible for me to be at Tehbali in a week's time. What do you say, childie ?"
"I will do whatever you settle for me, dear father," replied Gertrude, divided between her wish to please him, and her fear of leaving him, even for a few days.
"Well! all things considered, I approve the plan. You will be responsible for it all, doctor," he added, trying to be cheerful.
"Absolutely. If you say another word, I shall have a legal document prepared, delegating to me your paternal rights."

Everything was settled for their departure that evening. M. Kersain was to accompany them for two or three miles beyond Khartoum, and he hoped to be able to rejoin them in a fortnight at latest. The day went by in preparations. They started about seven o'clock. At eight o'clock M. Kersain took leave of his beloved daughter and his friends.
"I entrust them both to you! May we soon meet again !" he said to Norbert, warmly shaking him by the hand. "Farewell, doctor!. . . Farewell, my darling child!" . . He pressed her to his heart an instant, then shaking his bridle, started off at a gallop, anxious to hide his tears from Gertrude.
"Shall I ever see her again ?" passed through his mind
as he rode back to Khartoum. Gertrude did not know why she also felt as if the separation would break her heart. She blamed herself for having agreed to it. It would have been a thousand times better, she felt, to have resisted with all her might, in order to stay with her father. But now it was too late! The arrangements could not be upset, and she must take the consequences of her weakness! $\therefore$. Norbert and the doctor tried hard to make her smile, but she was too unhappy to make any response to their affectionate solicitude.

At midnight they encamped, according to the usual custom, under two tents pitched by Mabrouki's Arabs at the foot of a hill close to the track.

While they were breakfasting next morning, previous to resuming the journey, a poor woman passed by, driving an ass before her laden with figs.
"Will you buy some of my fruit ?" she asked.
They purchased a basketful, and eat some figs then and there.

Not three minutes afterwards a deep and resistless slumber seized upon all alike. Fatima was the first to succumb : she fell sound asleep beside her mistress: Gertrude did likewise, followed by Norbert and the doctor. The Arab camel-drivers also soon stretched themselves on the sand, unable to keep their eyes open.

Mabrouki alone struggled long against a kind of stupor, mingled with the vague consciousness that it was his duty to keep awake. But at length he too yielded to the seductive influence, and lay down wrapped in a dreamless slumber.

## CHAPTER XIII.

## THE PRINCE OF DARKNESS.

On first awaking, Gertrude thought she must be still in a dream. She opened her eyes in a large lofty circular hall, lighted by seven copper lamps.

The walls were most artistically carved and decorated. In a circle round the hall stood basalt columns and statues of porphyry, separated from each other by mysteriouslooking alcoves which the imagination pictured as filled with strange fantastic furniture. Mdlle. Kersain was the daughter of a distinguished archæologist, and therefore knew at once that she was looking upon work done in the greatest of the Egyptian ages. Her interest in art got the better of her fear for a few minutes, and she walked round the hall to look at its decorations. One would have said that the sides of the alcoves between the columns and the colossal statues were covered with gaycoloured draperies; but in reality they were adorned with frescoes whose brilliant colours had lasted through thirty centuries. The skilled artist had first patiently carved with his style serried battalions of warriors, animals, gods, and goddesses, with heads of dog, cat, and bird, mingled with flowers, palm-branches, and symbolical globes, with large outstretched wings. The painter then, in his turn, following the carved outlines with his brush, imparted to them the very colours of life. Round the frescoes, whose groundwork was deep red, ran a green line, enhancing the effect of the dazzling white walls. The half-opened blossoms of the mystic lotus hung languishing, as if about to fall from their fragile stems, while the golden hue of the palm foliage contrasted with the more vivid tints, and completed the harmony of colour.

The bed on which Gertrude lay was of grotesque form, and richly wrought. It represented an immense bronze tiger, stretched out full length, his back forming the couch, covered with a leathern mattress. It might have been just made for some princess of the eighteenth dynasty. An ivory seat, whose delicate carvings resembled the finest lace, a silver table, whose furbishments were of yet greater value, one of these being a polished disk resting on the sculptured head of a kneeling slave, and a magnificent lion-skin covering the marble seats, completed the furniture of the alcove, where Gertrude had just returned to the consciousness of her surroundings.

On the lion-skin lay Fatima, still wrapped in deep sleep. How had they come to this strange place? How long had they slept? Gertrude had no idea; and, taking up her watch, she found it had stopped.
"Fatima!" she cried in sudden terror, throwing herself off the bed.

The little maid opened her eyes. She seemed dazed, but got on her feet mechanically as it were.

Nearly at the same moment a hidden door in the wall rolled aside noisily, and there appeared on the threshold an enormous and richly-dressed negro. face.
"The master!" . . . he said, falling prostrate on his
Behind him stood the dwarf of Rhadameh. He wore a linen tunic white as snow, and a crimson belt sustained his richly-jewelled sabre. An aigrette of horsehair surmounted his turban, and from each hair depended a diamond. Thus apparelled, the hideous black face and misshapen body looked more repulsive than ever.

Advancing with an assured air, however, of self-satisfied confidence in the effect of his charms, the monster came smiling to Gertrude. tone.
"What do you want?" she asked in a cold, haughty
Lifting his hands, the dwarf made her an obeisance in the Arab fashion, without uttering a word. But the expression of conceited vanity in his eyes was so evident that Gertrude could not refrain from setting him down.
"Poor miserable creature," she resumed; "now I think of it, you cannot answer me since you are dumb!... Doubtless you bring me a message from your master. You are the slave of the Mogaddem of Rhadameh. . . . I recollect seeing you in the dust at his feet. . . . Am I to thank him for thus carrying me off, and keeping me a prisoner against my will ? . . . But do you even understand French ?"

The dwarf nodded his head.
"You hear me ?" repeated Gertrude.
"Yes," nodded the dwarf.


The monster came smiling to Gertrude.
"If so," replied the young girl, rising to her feet, " go and tell your master that he has been guilty of an unjustifiable act . . . . it is money, doubtless, that he wants let him name my ransom to my father! . . . Or else send me under an escort back to Khartoum, on my promise to remit the sum agreed upon to his messenger!... Go! . . . Leave my presence as quickly as possible!" . . .

Instead of doing her bidding, the dwarf knelt down and kissed the hem of her robe, regarding her at the same time with an air of supplicating humility that contrasted strangely with his previous arrogance of demeanour. The tender-hearted girl, fearing lest she might have needlessly pained an unfortunate being, now said more gently,-
"What can I do for you? . . . You seem to be appealing to my compassion ? . . . Perhaps the Mogaddem has been hard upon you ? . . . If so, come to Khartoum. . . . My father is powerful and respected. He will know how to protect you."

The dwarf smiled disdainfully, and rising, stood before her, his hands on his hips, and answered in a stentorian voice, in French,-
"I am not a slave! . . . I need no one's protection, and if I do homage, it is to beauty only. . . . What I offer thee, young girl, is to share with me the throne of the Soudan; I am the king, and I have chosen thee to be my queen!"

Gertrude could not speak for astonishment, and he continued with a sneer,-
"I, dumb! . . . I, a slave ! . . . Is it possible that appearances have thus deceived thee! . . . Thou speakest of a ransom-poor ignorant child!... No sum that thy father could offer would bear comparison with my riches! . . . Know that the universe is my domain, and that my power is boundless as it is mysterious! Thou didst mention my apparent and pretended servitude to the Mogaddem ? The Mogaddem is but my instrument and my servant, like the Mahdi, and many others, though they are far from suspecting it!... I am the master of the Soudan, pending the time when I shall be the master of Africa and
of the whole world. I am modest when I speak of offering thee but one throne ; for I can place ten or twenty, or a hundred at thy feet, if thou wilt say but the word, and the whole universe shall do homage to thee, like myself a moment ago! . . . I am Kaddour, the all-powerful magician, the Prince of Darkness. Rejoice, child, for I have chosen thee to share my glory and my power."
" Enough ! " exclaimed Gertrude haughtily. "Vile slave, thinkest thou that thy bragging can inspire aught but
disdain?"

The dwarf was not disconcerted.
"Again that word slave!" he cried. "I have already told thee that I am master, here and everywhere. . . . Canst thou not believe it ? . . . If my black skin causes thee to class me among a despised race, I can change my colour ! . . . See!" . . .

To the increasing amazement of Gertrude and Fatima, the dwarf now transformed himself under their eyes. His skin first paled, then became grey, greenish, yellow in turns: his features contorted convulsively, and he came forth from the struggle hideous as ever-but white! . . .

Fatima gave a terrified scream, and fell prostrate. Mdlle. Kersain felt her own heart palpitate rapidly, but not for worlds would she have shown any alarm.
"Think not to frighten me by this juggling," she said. "White or black, to me thou art naught but a charlatan. . . . If it is thou who hast brought me hither, release me as quickly as possible! Thou wilt gain nothing by delay, and thy ridiculous venture will be forgiven only on condition of my immediate freedom. Bethink thee that I belong to a powerful nation who knows how to protect the honour of her children!"
"Speak not to me of thy nation!" thundered the dwarf. "I have said, and I repeat, that my power is limitless; the acts of nations, and the very counsels of kings, did they but know it, depend on me. I am he who holds the invisible threads of destiny throughout the world. . . . Men are but puppets in my hands. . . . Thou dost not believe me?... Thou needest proofs ? . . . Thou shalt have them!"

He beat his enormous hands, and suddenly one of the alcoves opened, and formed into a stage scene, with the difference that instead of side wings of wood and canvas, there appeared a long gallery lighted by silver torches, and filled with marble statues, colonnades, and rich decorations. On a raised platform in the middle of the gallery stood a golden throne, and a numerous court surrounded it, bowing respectfully as if it had been occupied instead of standing empty.

Every type of humanity and variety of costume were represented. There were narrow-eyed Chinese, Japanese in their lacquer armour, Indians, Arabs wrapped in white burnouses, Canadians in furred vests, Zulus with their assegais Boers with rifles, tattoed Fijees, and a hundred others with all their respective characteristics and physiognomies.

When the crowd had defiled before the throne, and had taken their places down the sides of the gallery, the aforesaid gigantic negro, who had announced the entry of Kaddour, now stepped to the foreground as if awaiting the orders of his master.
"Call the Envoy of Canada," said the latter.
An American half-breed, clothed from head to foot in beaver skins, stepped forward, bowed profoundly before Kaddour, and said in French,-
"Master Riel waits but thy orders to instigate his Canadian brethren to revolt against England."
"The Envoy of the Boers!" cried Kaddour.
A rude, sunburnt peasant slouched heavily forward, pulled a sealed letter out of his cap, and handed it to the negro, saying in Dutch,-
"The Boers of the Cape send greeting to Kaddour, and they will revolt when he gives them the signal."

The dwarf translated all this to Gertrude ; then he resumed,-
"Let India advance now!" . . .
A young maiden in the costume of a Nautch girl came forward, wrapped in a silver-spangled gauze veil, and spoke as follows in a clear, musical voice,-
"India seems to slumber, but she is waiting. A hundred million are at the service of the all-powerful Kaddour to strike for freedom and vengeance."
"Is my daughter of green Erin present?" asked the dwarf.

A fair-skinned, black-eyed Irishwoman, dressed in deep mourning, responded :-
"The Invincibles," she said in English, "are ready for anything. They will blow up London should the master think that will advance the cause!" . . .
"Now the son of the Mahdi?" shouted the dwarf.
"Kaddour is great, and the Mahdi is his prophet," said a young Arab instantly.
"Enough!" replied Kaddour. "Disappear, all of you!"

The alcove closed suddenly, and the vision vanished.
"Thou seest who I am ?" he said, turning to Mdlle. Kersain.

Crossing his long arms on his misshapen chest, he gave her a look of irony, which she returned with interest.
"I see," she answered, not without some hesitation, "that thou hast clever actors who know their parts well!"
"Actors!. . . Is it thus thou termest all these agents of my power, whom thou hast just seen, and the others whom I might cause to appear? . . . They are not actors, child. They are powerful instruments, the more docile in my hands that, in serving me, they think to further their own passions or schemes. Unknown to each other, divided in race, in interests, in animosities, they yet conspire and take up arms in every quarter of the globe at my sole instigation. I alone govern them. I alone can inflame their anger at the right moment. Were I to say but a word, the world might be in ruins to-morrow, and I alone reigning in the light of day, as now I reign supreme in the darkness! .. Who but myself now keeps England at bay? The Mahdi, as thou shalt see, is only my general. . . . India would rise up if I wished it. Canada obeys me. Cetewayo triumphed as long as he was content to be mylieutenant: he failed on the morrow of the day when he sought to escape
from me. . . . Is not trembling Ireland ready at my beck to light the match that I have prepared for her ? . . . My police are ubiquitous, and keep me instantly informed of the least fact of importance throughout the universe. That child Mauny thought to conceal his plans from me. I knew them in detail the moment they were arranged. . . . Thou thyself went starting for Tehbali, . . . and see ! thou art here!"
"Yes! Thanks to some shameful treachery!" cried Gertrude. "It matters not, dwarf; I do not believe in thy boasted power."
"Thou dost not believe in it even now ? . . What then would convince thee ? . . . Would'st thou see what brave Gordon is this moment writing to his Government ?"

Once more the dwarf beat his hands. Another alcove similar to the first opened, disclosing, not a sumptuous gallery, but a plain telegraph office. The wires lay on a table, and were all numbered, and attached to the machine. On a level with the latter were ivory plates, bearing the inscriptions: Paris, London, Rome, Constantinople, St. Petersburg, Algiers, New Vork, Pekin, Calcutta, Quebec, \&c. On a second table, breast high, the blue telegraph tape was slowly unwinding.
"I have turned the Khartoum wire aside," said the dwarf laughing, "and Gordon's despatches must pass here on their way to Cairo. Read this if thou art interested."

Gertrude remained motionless.
"I will read it to thee," continued Kaddour,-
" General Gordon to Sir Evelyn Baring, Agent-General of her Britannic Majesty at Cairo.
"Khartoum, March 2.
"If an English battalion start for Khartoum via the Nile, everything will be saved. The number of men is unimportant; the prestige is sufficient. The insurrection will die out of itself, if only I am supposed to be supported by European troops. If not, all is lost. We shall be blockaded in less than three days.
"(Signed) Gordon."
"I shall send on the despatch," said the dwarf with a sneer, "but I shall alter it somewhat by stating that no army
of support is needed! . . . What sayest thou, child ? . . . Now dost thou believe in my power?"
"I believe above all in thy treachery," answered Gertrude, preserving her attitude of disdain.

## CHAPTER XIV.

## BLACK AND WHITE MAGIC.

On hearing this, the dwarf grew pale with rage. For a few minutes he remained plunged in a gloomy reverie. Then, turning to Gertrude, he said with a long-drawn sigh,-
"How can I manage to convince thee? Foolish girl! art thou then impervious to fear? Darest thou indeed resist him whose power is like a net over the whole earth ? . . . Thou art not, doubtless, content with what thou hast seen already. Young girls are curious; perhaps thou desirest proofs of my supernatural power? Thou shalt have them. Would thou at this moment behold him of whom thou art thinking?" . . .

Kaddour blew a shrill blast on the silver whistle hanging to his sash. Instantly a third alcove opened like the others, and behind a screen formed of a large sheet of crystal there rose a slight cloud-like mist. This gradually condensed and took at length a human shape. Gertrude recognized her father.

He was seated in his cabinet in the French Consulate at Khartoum, and attentively studying a report that lay before him. On a sudden he leant back in his armchair and seemed pensive. Then he opened a drawer in his desk, and took out a portrait that Gertrude tearfully recognized as her own. It was a miniature painted in Paris when she was quite a child, representing her with golden ringlets, poring over her alphabet. M. Kersain kissed it long and tenderly. Tears must have filled his eyes, for Gertrude saw him wipe them away, and her own flowed so profusely at the sight that she could no longer
distinguish anything. . . . Little by little the vision faded away and disappeared.
"That is the present," said the dwarf, "and now behold the future."

On the crystal screen where but a moment before the image of her beloved father had rested, Gertrude now beheld a circular form that gradually took distinct shape. She knew it for the grand square at Khartoum, with Government House on one side, the French Consulate on the other. It was apparently the dawn of day ; people of every age and condition were running across the empty square. They wore a haggard, terror-stricken aspect. All at once a general officer issued from Government House followed by four or five men. He was short in stature, fair-haired and blue-eyed, and he descended the steps with great rapidity. Anger gleamed from his countenance. As he turned round towards Mdlle. Kersain, she saw that it was General Gordon. . . . At the same instant a band of ragged Arabs burst into the square.

As soon as they perceived the little group coming towards them they stood still and fired a volley from their rifles. The General fell. His escort fled, whilst the insurgents ran to him ; and with a shudder of horror Gertrude saw them hold up the bleeding head of Gordon. . . . Averting her eyes from this terrible sight, she glanced at the Consulate and thought she saw her father coming forth alone. . . . An agony of apprehension seized her lest a fresh, and to her loving, filial heart, a yet more horrible catastrophe was about to be shown her; and, meanwhile, as she gazed, the vision clouded over and all disappeared.

For a few minutes Gertrude was too shocked to speak; but soon regaining command over herself, she said coldly,-
"The future does not belong to thee. What thou hast shown me is only an evil dream. Gordon will not fall by thy means, but he will hang every one of you." . . .
"Thou darest to speak thus to me ?" cried the dwarf, grinding his teeth. "Ah! thou fearest nothing ? Well, then, behold!". .

Whilst saying these words he held up both arms.
At once a hideous din arose, seeming as if it would rend the very bowels of the earth. The monsters who upheld the doors and cornices suddenly came to life, and filled the chamber with their howling. The paintings on the walls appeared to stand out apart with strange gestures; gods with heads of dogs, cats, jackals, and birds, strange beasts and monstrous crocodiles advanced towards the young girl, all turning their blood-shot eyes on her.

Nearly mad with terror, Fatima rushed shrieking into the arms of her mistress.
"Stop thy menagerie," said Gertrude disdainfully to the dwarf. "If thou art trying to frighten me, I warn thee that it is waste of time."

Kaddour muttered a few words in an unknown tongue. At once the monsters, and the beast-headed gods resumed their immobility. Gertrude shrugged her shoulders. But the dwarf fixed his flaming eyes on Fatima, and made a sign. The young servant, leaving her mistress, went towards him. Her eyes were wide open, but their look was, as it were, turned inward.
"Fatima," said the magician in a sepulchral tone, "thou lovest thy mistress I know. She believes in thy affection, and cherishes thee as a sister. But I say to thee, take this poniard out of my sash, and plunge it in her heart!"...

Fatima gave a deep sigh; two big tears hung on her eyelashes and rolled down her cheeks. Nevertheless she stood before the dwarf, took the poniard from his sash, and turned towards Gertrude with uplifted arm, ready to strike.
" Hold!" said the dwarf.
She stood still as if turned to stone, her arm fixed in its attitude.

As to Gertrude, she could scarce restrain her tears.
"Poor child," she murmured, trying gently to lower the rigid arm of her little maid, "do not be afraid lest I might blame thee. I am acquainted," she added, turning to the dwarf, "with the phenomena of hypnotism, and this witchcraft cannot shake my faith in her fidelity."
"At least it proves my power to thee!" said Kaddour, making a sign which restored Fatima to consciousness. She came out of her cataleptic sleep all trembling still, but at once ran to her mistress like a frightened fawn.
"Hearken to me," continued the dwarf to Mdlle. Kersain. "Thou art a woman. It is impossible that thou shouldst not be attracted by the prospect of power, unique, absolute, and illimitable. Thou knowest now what is possible to me in a civil and military point of view. Thou knowest that riches are all absolutely at my disposal, for there are no inaccessible treasures to a power like mine; thou hast seen a specimen of my supernatural faculties. Thou canst not doubt that any secret is unknown to me. Neither the visible nor the invisible world has any mystery for me. I know everything; I can do everything. At my service are the resources of ancient and modern science, the traditions of all magicians, black and white, Europeans and Asiatics, gnostics and Arabians. I am the invisible agent in every action. . . . And I ask thee, wilt thou share this unexampled power with me ? Wilt thou be Queen of Africa, Empress of India, of China, of the world ? Put thy hand in mine. To-morrow the French shall be massacred in Algeria and at Tunis, the English in India, in Egypt, at the Cape, and even in their own island. Russia shall fall upon Germany, the Mussulman upon Europe ; and in six months' time I will crown thee Queen at Byzantium. . . . If this does not please thee, it needs but a sign from thee, and I remain in the shade, all powerful, but hidden, as I have been until this day ; and thou shalt reign with me without the source of thy power being suspected. . . . Or again, if thou shrinkest from the cares of power, and doth prefer a calm and peaceful life,-I give it all up, and go with thee to any land thou dost prefer, bearing with me the riches accumulated in this crypt, and leaving poor humanity to settle its own affairs!"

Perhaps the situation had its tragic side, but Gertrude was so irresistibly struck with its comicality that she burst out laughing.
"It is a pity, poor idiot!" she cried, "if thou hast not a looking-glass among thy stage property!" . . .

The speech and the accompanying laugh were like a cold douche on the sentimental dwarf. He got into a perfect fury.
"Unhappy being," he howled, "dost thou answer me thus ? . . . Thou shalt not laugh long, I swear. The whole earth shall suffer for what thou hast done! Wert thou to live a hundred years thou wouldst not have time enough to repent insulting Kaddour!"

He went away devoured with rage. The door had scarcely closed behind him when Gertrude and Fatima heard heavy bolts and chains put up outside their prison walls.

An hour went by in peace. At the end of that time the door opened once more, and an exclamation of joy broke from both as, looking up, they saw Norbert Mauny standing in the threshold.
" Gertrude ! . . . Mdlle. Kersain !" cried the young astronomer. "I never expected the happiness of finding you in this mysterious prison! Will you ever forgive me for having brought you here ?"
"Forgive you," said Gertrude, "what are you talking about? Are you not also a prisoner? I am only too thankful to see you again! . . . Do you know what has become of my uncle and Mabrouki ?"
"I have not set eyes on them," he answered, "since we eat those unlucky figs, that doubtless contained some subtle narcotic."
" It is for you rather," Gertrude continued, " to reproach me for your captivity, for had it not been for me you would never have been here!"
"If only I could prove my devotion to you more clearly!" cried Norbert. "We must certainly get out of this. But how in the world are we to ascertain where we are, and in whose custody ?"
"Do you not know? The dwarf of Rhadameh is our gaoler; and humbling as is such an avowal to my self-love," added Mdlle. Kersain, blushing, "not an hour ago he offered me his hand!"
" Insolent myrmidon!"
"I laughed in his face, as you may imagine, and he went off in a towering rage, threatening me with his vengeance."
"The point is," said Norbert, looking round, "what he can do, and what he intends to do. This dungeon of yours is rather different from mine."

He had not ceased speaking when a panel slid aside in the wall, and the dwarf of Rhadameh stood before them at the head of a battalion of two or three hundred black men. Norbert noted as passing strange that this troop was exactly similar in every particular to his own black guard. The men were of the same type, equipped alike, with tiger-skin shields, and the same kind of helmets and lances.
"I will show you what I will do, and what I CAN do," said Kaddour, echoing the last words of the young astronomer. "I will that this young girl become my wife, and I can do a great deal to oblige her to consent. For instance, I can subject thee to torture, and likewise also her uncle and your servants. Then, taking you to Tehbali, I can, under your very eyes, destroy, stone by stone, all the works of your ambitious vanity. We shall see, then, if thou wilt not be the first to ask her to accept my offer!"
" Gertrude! " cried Norbert, "do not yield from pity for me, I pray you! It would, indeed, be grievous to witness the destruction by this wretch of the works that have cost me so much time and trouble! . . . But that you should marry him would be the bitterest grief of all!"
"Nothing is farther from my thoughts," said Gertrude calmly; "and if anything could increase my horror for the monster it would be the means he has chosen whereby to shake my resolution!"

Kaddour grew white with fury.
"Bring cords!" he cried, "and bind this fine gentleman! We will begin by going to Tehbali. It is time that I tried my hand there too; all the more so, that I have a bone to pick with others there besides M. Mauny!"

## CHAPTER XV.

## THE SONS OF THE LAKE COUNTRY.

Sir Bucephalus had not long been up, and was taking his usual morning constitutional round the plateau of Tehbali, when Virgil came up to him, saying,-
"I have just had pointed out to me, sir, a troop of armed men in the distance, who seem to be coming this way. M. Mauny left stringent orders that no one was to be allowed to visit the works without an authorized permit. . . . I think it will be well, therefore, to arm the negro guard, and go and meet the suspicious-looking troop." . .
"Very well," replied the baronet, with supreme indifference. "It is your business. Stay," he resumed, as Virgil was turning towards the barracks, "perhaps it is M. Mauny returning. He has been gone more than a fortnight. Do you not think it strange that he should be away so long ?" . . .

Virgil did indeed think it strange, and he was most anxious about his master; but he thought it better to say nothing, and to attend simply to his trust. Norbert had named him overseer of the works, and he would watch over them till the end of time, if necessary.
"Doubtless, sir," he replied, " M. Mauny has his reasons for remaining so long at Khartoum." So saying, Virgil bowed and retired.

The baronet resumed his constitutional for an hour precisely, watch in hand, and then seating himself in a caned chair, he buried his head in the European newspapers-they were brought him every morning by a special messenger from Berber.
"By Jove!" he exclaimed a minute after, "Gordon named Governor-General of the Soudan! Reached Khartoum, having crossed the desert alone on a camel! Just sike him!" murmured Sir Bucephalus, as he hurriedly glanced over the Times. "That, no doubt, is the explanation of Mauny's delay at Khartoum."

Meanwhile Virgil had armed the negro guard, and, mar-
shalling them in double file, he took the lead down the roadway cut in the peak. In twenty minutes his hundred warriors, agile as panthers, were in the plain beyond the village, and stood in battle array against the new-comers at the range of about two gunshots from the first huts. The enemy soon made his appearance. Their caravan consisted of one camel, bearing a kind of closed palanquin with Gertrude and Fatima within ; three others following, on which Norbert, Doctor Briet, and Mabrouki, all gagged and chained, had journeyed five days; the rear was brought up by the dwarf of Rhadameh, mounted on a magnificent Arab steed, and followed by his negro guard.

At the first glimpse Virgil saw that it was his master, and knew that some misfortune had happened. But his intrepid soul knew no hesitation.
"Halt!" he cried, stepping out alone twenty paces in advance of the troop. "What are your intentions? ... Why do you keep these gentlemen prisoners, and subject them to this shameful treatment?"

Kaddour had ridden up to head his troop. Surprised at first by the unexpected resistance, he quickly recovered his audacity on finding that his own guard was three times stronger than the opposing one.
"My intention is," he replied arrogantly, "to take possession of the Peak of Tehbali. Surrender instantly, unless you wish to be annihilated to a man!"
"Surrender our arms!" exclaimed Virgil. "Wretched dwarf, you shall swallow them first!" . . .

He turned round, and, drawing his sword, gave the word of command to his troop: "Make ready! . . . Present! . . . Fire!" . . .

To the extreme surprise of both, the command was not obeyed on either side. One of the dwarf's officers left the ranks, and came up to speak to him ; whilst Chaka likewise left his comrades and, approaching Virgil, said, pointing to the black guard of the dwarf,-
"The Sons of the Great Lake countries war not against each other. Command us what thou wilt, except to fire upon our brethren." . . .

At the same time the dwarf's officer was saying,-
"These men are, like ourselves, the children of the Great Lake countries. Brothers do not fight." . . .
"Brothers do not fight?" repeated Kaddour, pale with rage. "Wait a little, Madouppa; I will teach thee to speak to me in that tone." . . .

Taking a revolver from his holster, he took deliberate aim at the officer as he stood before him, and blew out his brains.
"Now will you march on ?" yelled Kaddour to the negroes.
"We will march, but against thee, if thou darest again to threaten us," replied the foremost. "We are thy soldiers, and have sworn fidelity to thee, but not as against our brethren."

Kaddour foamed at the mouth and bit his nails in impotent rage. But he saw that his anger was all in vain, and muttered in a choked voice,-
"Well, then, file to the left, and let us return whence we came!"

But Virgil was not going to suffer this. He had been a silent spectator of the scene, and he intended to free his master.
"Wait, dwarf," he cried, rushing at him. "There is no reason why we should not fight, though our troops refuse to do so. ., Come on, . . . and let the conqueror take the prisoners!"

This bold challenge was loudly applauded by the black guard on both sides. They knew well how to appreciate deeds of valour.

Without pausing for a reply, Virgil threw himself upon Kaddour with uplifted sword. The dwarf had only time to parry the first blow by making his horse curvet, and to thrust with his fine Damascus steel blade. Virgil stood on guard, when suddenly his sword, being of an inferior make, broke short off as the blades met. Every one thought he was done for. But not so. Scarcely was he disarmed when he bounded like a tiger at the dwarf's throat, and, seizing him in his strong hands, lifted him bodily out of
the saddle and hurled him to the ground, where he held him pinned down by the knee before the wretch could move a finger in his own defence.

This brave feat was loudly cheered by both sides. Had Virgil been armed, there is no doubt that the dwarf would then and there have expiated his misdeeds. As it was, he was almost strangled by the grip of the Algerian sharpshooter. But when the first moment of anger was over, Virgil thought he had better not push his victory any farther, seeing that his enemy was down and apparently stunned. He made a sign, therefore, to his men to carry away the inanimate body of the dwarf.

The black guard of Kaddour came up at once to fraternise with the men of Tehbali. They screamed and danced, and embraced each other alternately. It was evident that there could be no question in future of any enmity between them. Perhaps the dwarf's guard were the most satisfied with a result that delivered them for ever from his malice ; the murder of Madouppa was a sign to them of the way in which he intended to be obeyed. They let themselves therefore be led away without protest, and did not even make any pretence of opposing Virgil, who had hastened at once to the prisoners.

It was the work of two minutes to deliver Norbert Mauny, the Doctor, and Mabrouki from their bonds, and to take Gertrude and Fatima out of the palanquin. As may be imagined, they had witnessed the foregoing scene with the utmost emotion from behind the closed blinds of their prison. Norbert's first thought on regaining his freedom was to put Gertrude out of the reach of further danger. He at once sent her on in front with the doctor and Fatima. He then commissioned Virgil to enrol the dwarf's guards among his own troops. But after consultation among themselves, the officers declined the offer; saying that the dwarf of Rhadameh having been beaten in fair combat, they would make no opposition against his having personally to bear the consequences of his defeat; but it would be incompatible with their honour as free lances to enter the service of the conqueror, just as, in like
manner, they could not in honour make war against their brethren. They added that they were sure of employment elsewhere. The Mahdi was marching on Khartoum ; they would go at once, and take service under his banner.

Norbert could not but honour these chivalrous motives (so often noted by travellers) in the poor children of the Lake countries, exiled and homeless as they were. He asked them to accept some refreshment as a favour to himself, and, cordially shaking hands with their officers, he bade them farewell, and hastened to climb the Peak of Tehbali once again.

He was followed by the black guard under Virgil. The unconscious Kaddour was carried on a shield by four men, and in the distance resembled nothing so much as a piece of roast beef on a large dish, as Sir Bucephalus humourously remarked on seeing the approaching procession.

Norbert's first care was to have the dwarf conveyed to the chamber vacated by the three "commissioners of control." This room opened off from the right hand side of the circular passage. The doctor was requested by Norbert to attend to the dwarf's injuries, and a sentinel was posted at the door of the room. Norbert then hastened to the drawing-room, where Gertrude, hardly as yet recovered from her terrible emotions, smilingly awaited him.

Now that the danger was past, they could measure its extent. What would have become of them had it not been for the sudden disaffection of the troops, and the heroic presence of mind of Virgil, that so unexpectedly reversed the state of affairs, making Kaddour the prisoner of his victims ? There was no doubt but that the dwarf of Rhadameh would have gone to every excess; would have destroyed the works, pillaged the observatory, murdered every adult in Tehbali, perhaps with horrible torments. Now they were free and victorious, and he was in their power! ...

Had Norbert given rein only to his indignation at the presumption of the wretched dwarf and miserable charlatan in daring to raise his eyes to Gertrude, and to subject him-
self (Norbert) to such ignominious treatment, he would have now made short work of the wretch, but with a delicacy of sentiment that all noble natures will appreciate, he mistrusted his first impulse so far as to postpone carrying it out whilst the dwarf lay unconscious; and hence his first act was to request the doctor to attend to the prisoner.

Doctor Briet reported the dwarf as still insensible, and suffering apparently from cerebral congestion. All idea of capital punishment was set aside for the time therefore, since no one kills a stunned and defenceless enemy.

The question also arose as to whether it was not, after all, a fortunate concurrence that he should be still alive, for he might turn out to be a useful hostage with reference to the Mogaddem of Rhadameh and the Cherofa tribe. This was the unanimous opinion after they had discussed the facts that had come to light, and had thanked Virgil profusely for the brave heroism that had changed the tragic situation into one of rejoicing and triumph.

Mdile. Kersain recounted the episode of Gordon's telegram, and the witchcraft by which Kaddour had tried to dazzle her. There could be no doubt that he was perhaps the most important personage in the Soudan, owing to his infernal genius, the extent of his knowledge, and the prodigious ramifications of his occult power. It might well be that fate had thus put into Norbert's hands the sole weapon whereby to subdue, not merely the tribes of the Soudan, but the population of all Mussulman lands. The dwarf had boasted that in his hands the Mahdi was but a puppet who would dance to his pulling. If this were to be confirmed, even in a restricted measure, by facts, they had captured a prize weighty indeed in the balance of coming events!...T The Mahdi was certainly marching upon Khartoum, and if the despatches of Gordon were, of a truth, interrupted and changed as seen by Gertrude, this rendered the approaching advent of an English army of relief less and less probable. In fine, it was all important to carefully guard their hostage, even if only from the
narrowed personal point of view that their workmen at Tehbali needed recruiting.

It was necessary, then, to heal him, and to keep him in sight, for the common safety depended perhaps on his life.

Virgil received orders to double the guard outside the prison-room, and to be on the watch against the certain attempt of the prisoner, once afoot again, to make good his escape.
"Do not fear but that I shall keep my eye on him," he answered, when Norbert gave him his instructions, . . . " I am not going to be bearded by a miserable insect like that!"...

## CHAPTER XVI.

## KADDOUR AT BAY.

Mindful of her father's promise to rejoin her in a fortnight at latest, Gertrude climbed up to the telescope every morning, and turned it in the direction of Khartoum, hoping to see a group of travellers coming towards the Peak of Tehbali. But though her great impatience to see her father was very natural, she was too well bred to obtrude it upon her host ; and kept to herself the bitter disappointment of each day as it came, bringing no news. It was with a heavy heart often that she took her seat at the breakfast-table. Her travelling companions, for their part, did their best to distract her thoughts, and were careful not to touch upon the subject uppermost in the minds of all. The doctor, especially, tried to amuse them with a daily account of his clinical observations.
" The dwarf," said he one morning, as he seated himself beside his niece at breakfast, " is one of the most singular beings I have ever seen. He has been conscious now for forty-eight hours, and I have not been able to extract a word from him yet!... Can it be that his speaking faculties are injured by some lesion of the anterior lobes of
the brain ; or is he, perchance, shamming dumbness as he did on the two first occasions of our meeting him ? . . . It is impossible to say. . . . But I have never been able to discover whether he is black or white (as he might very well be after what Gertrude witnessed during her imprisonment). I should not be at all surprised if he were dyed from head to foot, for his skin is of a slate colour, quite unlike those of other Nubians, and yet none of the reagents I have tried affect his colour. It must also be regularly ground in, and not merely on the surface, for it flushes and pales with the emotions of the individual." . . .
"Is such an incorporation physiologically possible ?" asked Norbert in surprise.
" Possible, yes ! . . . But I do not say that I should be able to bring it about ; although, after all, as the coloration of the skin of the negro proceeds from a special pigment, it is very conceivable that it might be possible to introduce the elements of the pigment into the system by alimentation, or through the current of the circulation. But many things that we in Europe cannot do, are but child's play to the Eastern magicians, and I should not be at all surprised if this were of the number! Gertrude, in fact, saw the negro turn white!"
"So did I," said Fatima, who was in attendance on her mistress at table.
"There are two witnesses ! " cried the doctor. "If only that animal would repeat the feat before me, I should be able to make out a theory! But there is no danger of his giving me this pleasure, although I cherish him like the apple of my eye!"
"You can flatter yourself, doctor," said the baronet laughing, "for having restored to life a fine specimen of moral and physical beauty."
"I concern myself very iittle, I can assure you," said the doctor, "with beauty, moral or physical. When I am with a sick man I try to cure him, the rest does not matter to me!"

The dwarf was confined in the old quarters of the commissioners, opening on to the circular passage, in the right
wing of the buildings, near a storehouse that had been converted into a barrack for the black guard. Kaddour had been placed there purposely, in order that he might be the more easily watched. The ex-commissioners themselves had been left at the foot of the mountain, in the secret hope that they might escape from their glass foundry, which would have been an easy solution of the question. But they took care not to do any such thing, being certain, moreover, that they would not be overlooked by the Arab bands prowling about the neighbourhood.

As soon as he was on his feet again, the dwarf was permitted to take the air twice a day in the circular passage, under the eye of the sentinel at his door, and of the bodyguard of the free lances who were about twenty yards distant. All communication between him and the soldiers was strictly forbidden; but the prohibition seemed unnecessary, for Kaddour never said a word, nor made the least sign; he merely dragged himself about his limited, cord-begirt square, wrapped in a huge white burnouse, that was disposed about his figure with some attempt at dignity, and gave to view only his great feet and thick red beard.

More frequently he would spend the whole hour allotted for exercise, upright in a corner, some distance from the soldiers, and perfectly motionless, his forehead supported by his right hand, as if absorbed in meditation. At other times, seating himself on a stone, he would take off his left sandal, and grasp his foot in both hands, considering it attentively, after the fashion of the fakirs. But never, not even by a glance, did he evince the least wish to converse with his keepers. Virgil, who kept a sharp eye upon him at these times, ended by being completely at rest on the point. There was one thing, however, that he (Virgil) could not help, partly because he did not see its danger, and partly because he was himself slightly under its influence: this was the effect upon the minds of those who were the daily witnesses of the reserved, silent, and meditative attitude and behaviour of Kaddour.

They all began to consider him a kind of professor, or at least a personage of note on account of the austerity of his demeanour.

Kaddour kept up these cunning wiles for seven or eight days. One morning he cut a hazel stick from the hedge, and made of it a wand about ten inches in length, employing all his leisure moments afterwards in carving figures upon it with a splinter of glass that he had picked up under a window. There was nothing to be said against this, for, from time immemorial, carving wood has been the favourite diversion of prisoners.

One day, when Virgil, having satisfied himself that everything was going on well in the circular passage, had departed to visit the works in progress, Chaka and some of his men were sitting in the sun outside their barracks, chatting about their own country. . . . Athwart the long years spent far from their native land amid the horrors of slavery, under such a task-master as Zebehr, most of them still looked back with tender regret to the region of the Great African Lakes where they had passed their happy childhood. But imagination, colouring these far-off reminiscences, caused them sometimes to take fantastic shapes.
"Alas!" said one, "when shall we see Bahr-el Ghazal again, where the crocodiles were as gentle as doves, and the herbs like tall trees?" . . .
"Where the dhoura bears fruit eight days after it is sown!" added another.
" The Supreme Master," said a voice behind the soldiers, "can make the dhoura grow and ripen in less than an hour!"
"Who speaks thus in the language of our fathers ?" cried Chaka, turning round in surprise.

He caught sight of Kaddour standing motionless and upright at the rope barrier of his yard.
"Thou hast uttered a great word, my brother," resumed the young chief; "but who is this powerful Supreme Master ?"
"He who was, who is, and who will be!" replied the dwarf solemnly.
"And you have seen him do what you say ?"
" Not only have I seen him do it, but he has conferred the same supernatural power on myself."
"Thou knowest how to make the dhoura grow in less than an hour ?"
" In a few minutes, if I like."
All the soldiers leapt to their feet in a fever of ardent curiosity.
" Father," said Chaka, " here are dhoura seeds; make them take root."
"In order to do that I must be surrounded by twenty of those who have been ill-treated!" . . .
"Who are they?"
"Seek them, son, seek them. . . . They have not white faces."
"Ah!" cried Chaka, "black men!... Call our brethren!" he added to his companions, pointing to the free lances inside the barracks.

In a few minutes twenty men stood round the cord barrier. The dwarf then walking backwards to the middle of his yard, and making signs that strict silence was to be maintained, took out the wooden wand he had so patiently carved, and waved it over his head whilst he muttered some cabalistic words. Then he drew a great circle on the ground, and, squatting down in the middle of it, dug five or six holes with his wand. In these holes he placed the seeds given him by Chaka, and covered them over with a pinch of earth, moistened with saliva.

Had he in his mouth some secret composition or herb known only to himself ? Doctor Briet would have soon found out, if he had been present at the experiment. Unfortunately it was only witnessed by black warriors, simple and credulous as children, who watched the progress of the operation with a passionate interest.

Kaddour again brandished his wand over the circular trench that contained the seeds, and murmured some incomprehensible formula. At the end of a few moments the earth was seen to rise up slightly over the holes and some little green shoots appeared. These, growing gra-
dually larger and larger, turned out to be reeds, that in less than ten minutes reached the height of ten inches. ${ }^{1}$

At this sight the black warriors, no longer able to contain their admiration, uttered loud cries. Kaddour silenced them with his uplifted hand, and went on with his incantations. The dhoura continued to grow, and soon it overtopped the dwarf, who was now standing up. A little bud appeared on every branch, and in another minute or two it would have swelled out, burst into blossom, and subsequently have ripened into corn.
"Chaka," said the dwarf on a sudden from the middle of his green circle, "wouldst thou behold him whom thou didst most hate?"
"He of whom thou speakest is dead!" replied the young chief, with a triumphant laugh.
"I know it. Thou art thinking of the son of Zebehr, whom the bashi-bazouks decapitated three years ago."
"Father," cried Chaka, "thou readest the very thoughts of men!"
"As, likewise, I can call up the dead. . . . This very evening, if thou wilt, I will show thee Suliman, the son of Zebehr, he who ordered thee to be flogged for his diversion. He shall tell thee what he is suffering in the region of eternal torments, and he shall crave thy pardon for his crimes."
"I will it father! . . . We all will it!" replied Chaka, quivering at the idea of seeing the persecutor of his childhood once more face to face.
"Well, then, all of you pass before my window this evening at the hour when the moon hides herself behind the hills of Darfour. . . . You shall there see Suliman!" . .

Kaddour had scarcely ceased to speak, when the outer door opened, and Virgil appeared on the threshold.

Hardly had the black guard time to glance at the newcomer before the dhoura had already disappeared, being

[^2]torn up by the roots, and smuggled under the vast folds of the dwarf's robe. He stood silent and motionless, as if absorbed in his wonted meditation.

But Virgil saw quite enough to convince him that something unusual was going on. The troubled, startled expression on the faces of the black men, as they stood close pressed against the cord-barrier, spoke for itself. He was careful, however, not to disclose his suspicions, and shortly withdrew, having seen Kaddour once more safely caged. But Virgil wisely determined, all the same, to redouble his precautions.

When the time came for his usual evening round, he saw that the black guard were in a state of evident agitation or impatience, and seemed to be waiting for something to happen. He ordered the lights to be extinguished at an early hour, and made a pretence of retiring in a hurry ; but, returning almost directly by the other entrance to the circular passage, he posted himself where he could watch without being observed.

Virgil soon found that the guard also were watching in the dark, which decided him to wait until the reason for this extraordinary behaviour should become clear. The moon had just sunk below the horizon when Chaka and his men left the barracks, one by one, and proceeded on tiptoe towards the prison. They were evidently trying to make as little noise as possible, but that they were very excited was plain from the stifled exclamations that escaped them in the course of the very voluble conversation that was carried on in whispers.

It was a dark night, and Virgil could not well see what was happening. But, on a sudden, a bright light from one of the windows of Kaddour's lodging shone out on the black guard grouped in front. The warriors, brave as they were before the enemy, seemed all stricken with terror, and clung close to each other, not daring to move backwards or forwards.

Their eyes had just beheld a horrible sight. In the opening of the window stood a white wooden table, unevenly made, and devoid of cover or any ornament what-
soever. A brass dish was on the table, and it contained a bleeding human head, which all the warriors recognized for that of Suliman, the son of Zebehr! . . . of Suliman, who had been dead for three years! . . . The head lifted itself from off the dish, opened its eyes, and looked about! . . .

Had Chaka and his warriors lived in Paris about the year 1876, they would have seen that what appeared to them such an unheard-of prodigy was simply the result of a most simple artifice ; although, however, the whole town ran to witness the wonder to be seen in a cellar of the Boulevard des Capucines. The trick was done by means of a round hole cut in the table, and a vertical mirror placed so as to conceal the body of the actor who impersonated the "speaking head." But Chaka and his warriors had never heard of Paris, nor of the Boulevard des Capucines, and hence they were struck dumb with fear at the apparition.

All at once the lips of the dead man moved. Were they about to speak? They did speak, and with the identical guttural drawl that had characterized the son of Zebehr.
"I made you suffer," said the voice: " now I suffer! . . . I put your people to death: I am dead! I was never merciful to you: if I am to obtain mercy, I must speak with you as a father and friend, and tell you the words of truth! ... Listen to me, sons of the Lake Countries! Listen to me, if you would escape the torments that I endure in the cavern of death!... You must embrace the cause of the holy Prophet!... You must obey the orders he gives you through his faithful servant Kaddour! You must cease to serve the giaours, and you must unite with your black brethren against the Europeans! Unless you massacre all the white men, you will see them triumphant throughout the desert, and they will drink your blood!. . . Take heed to my words, sons of the Lake Countries, for I have spoken thus to you in order to purchase my own pardon!"

The head stopped speaking, and shut its eyes, as if overcome by the effort it had made. But in an instant it had opened them again to say,-
"If you do not believe me, the father of Chaka will appear in my place to-morrow evening, and he will give you the same advice!" .. .

The light then suddenly went out, and the vision disappeared. But the free lances were still further terrified by a long sigh-a heart-rending sob-that seemed to come from the very bowels of the earth. Surprise and horror kept them for some time motionless, and when at length they dared to move, all withdrew in silence to their barracks.

Virgil thought rightly that there was not a moment to lose. Lighting his lantern, that he had before purposely extinguished lest they should see him, he ran to the door of the prison, unlocked it, and surprised Kaddour in the act of taking off his masquerading costume and its accompanying shams. Plaster, scratched off the wall, had given a death-like look to his features; he had opened a small vein in his arm to tinge the linen with blood; the dressing-table out of Peter Gryphins' room had furnished the round hole containing the brass dish that held the head ; and the mirror had been borrowed from the lodging of Ignaz Vogel.

It was the affair of a few minutes for Virgil to rush upon the dwarf, throw him down, gag him, and tie him head and heels. He then hurried out, locked the door, and hastened to report to Norbert all that had happened.
"You will, of course, do as you please, sir," said Virgil, as he concluded his recital; "but, believe me, a summary execution is the only way to prevent revolt among the black guard. All is lost, unless before an hour has passed you put three balls through Kaddour's head!"

Although such severe measures were foreign to his own ideas and habits, Norbert was much inclined to agree with Virgil. The case was very pressing, as well as serious; it was necessary to take immediate steps, and to strike a decisive blow. Weighing the matter well fora few minutes, Norbert came to the conclusion that it would be impossible to spare the life of the dwarf unless, in the presence of his dupes, he made full and detailed confession of his trickeries.

He therefore seated himself at his desk, and drew up a provisional sentence of death, whilst Virgil went to arouse the doctor and the baronet.
"I am under the dreadful necessity, gentlemen," said Norbert, "of decreeing on my own responsibility the immediate death of a man. . . . I need not tell you how painful it is to me to have to do this. But I could not hesitate without serious peril to the precious lives under my charge. . . . When I leave this land I shall make it my duty to submit my conduct in the matter, and to lay the circumstances before a duly-qualified tribunal. . . . I have sent for you to ask you to be so good as to sign the official report that shall be drawn up."

On hearing the details, the doctor and Sir Bucephalus fully approved of their friend's decision, and declared their readiness to join him in signing not merely the official report, but likewise the sentence itself, but this generous offer Norbert as generously declined to accept.

Orders were given to marshal the black guard without arms, in the circular passage, to which all repaired, the free lances being ranged in four lines, Chaka at their head.
"My friends," said Norbert, "you have been deceived by an impostor. The miserable tricks by which he endeavoured to shake your sense of honour and fidelity were, in truth, an insult to brave warriors like yourselves. I knew well that you would only despise such juggling; but before inflicting the punishment he deserves for his base intention, I wish you to see by what means he tried to make fools of you. . . . Chaka, take six men with you, and come with us to the prison!"

The young chief obeyed without a word, but it was evident that neither he nor his warriors expected anything to come of this visit.
"Here is the table, the mirror, and the blood-stained linen used by the impostor," said Norbert, proceeding to explain to the negroes the different uses of these accessories in the imposition of the "speaking head."
"But where is the head of Suliman?" said Chaka ironically, pretending not to understand Norbert.

At the same instant he caught sight of the dhoura-stalks brought by Kaddour.
"And this dhoura? How did he make it grow in less than an hour ?" he asked. "For we saw it grow under our eyes!" . . .

This was news to Norbert, who had, of course, no explanation to give. The black men looked at each other, and shook their heads.
"Bring out the condemned man!" said the young savant, as he re-entered the circular passage with his followers.

Virgil soon returned with the dwarf, whose countenance betokened no anxiety whatever.
"Stand there," said Norbert, pointing to the wall. "I will read you your sentence."

The document that he proceeded to read aloud by the light of a torch was lengthy, and set forth all the facts and arguments of the case, concluding with the following words :-

> "Wherefore, because of the aforesaid crimes of abduction, arbitrary detention, exciting to massacre, and attempt to entice away, the dwarf Kaddour is condemned to the pain of death. He will be shot ten minutes after he shall have had notice of this sentence. (Signed)

Mabrouki translated these words to the black guard, who received them in profound silence. It was evident that the free lances were looking out for a manifestation of the power of Kaddour by some fresh prodigy.

Norbert turned to him.
"You have heard," he said. "One chance is still left to you. Confess and explain immediately the witchcraft whereby you tried to delude these brave warriors. If you do this thoroughly and candidly, your life shall be spared."
"I want no favour," replied Kaddour calmly, and not without some dignity.
"You have still seven minutes to decide," continued Norbert, taking out his chronometer. "If you will only own to your frauds, the sentence shall be commuted into imprisonment! . . Mabrouki, Virgil," he added, "prepare your weapons!" . . .
"I ask no favour," repeated the dwarf in a firm voice. So far from that, I will not even wait for the expiration of your respite of seven minutes! I will hasten to taste eternal felicity, and will not tarry for your signal!"

Saying this, he hurriedly drew from his finger a ring whose crystal bezil opened by means of a spring, and put it to his lips.
"It is," he murmured, "the ring of Eblis, the Angel of Death, who will conduct me to the abode of the blessed!" . . .

He fell back, as if struck by lightning. Every one rushed up to him. The doctor examined the motionless corpse. The skin was already cold, the pulse had stopped, the eyes were glassed over, the heart had ceased to beat.
"Death must have been instantaneous," said Doctor Briet. "It must have been caused by some such rapid poison as prussic acid. But what is it, I wonder ?" He took the ring from the dead man's hand. . . . All that was left in the bezil was a faint indication of a bluish liquid, that evaporated in a few minutes, so that any analysis was out of the question.
"The poor devil has spared us the trouble of shooting him ; it was the best thing he could have done! And we must at least own that he died bravely," added Norbert, by way of a funeral oration.

He ordered the body to be taken back to the prison, and to be buried on the following morning.

The black guard petitioned to have this charge entrusted to them. It was granted, and a few minutes before sunrise they accompanied the dead man to his burying-place on the eastern slope of Tehbali. According to the custom of the Arabs, he was interred in a rock-hewn cave, and the entrance closed with a large stone.

## CHAPTER XVII.

REVOLT OF THE BLACK GUARD.
The first event of any gravity during the following days was an attempt made by Aben Zegri and the other Cherofas to blow up the glass furnaces. It was soon frustrated with the assistance of the black guard. Norbert adhered to his usual policy of moderation, and contented himself with expelling the delinquents from his workshops, warning them that if they were found there again they would be subjected to all the rigours of martial law. Aben Zegri and his accomplices were deprived of their weapons, and conducted to the boundary of the plateau of Tehbali, where they were left at liberty, with sufficient provisions to last them for eight days. They went on farther into the desert, and were no more heard of.

Eight days went by peacefully, yet the news brought by the convoys from Berber grew worse and worse. It was known now with certainty that Osman Digma held the Suakim route, and that other Arab corps had been seen even in the neighbourhood of Dongola, thus barring the Nile route also. All communication with Khartoum was interrupted: the telegraph wire appeared to have been cut off, for no more despatches came: in fine, the Mahdist invasion was everywhere. The invading army, a hundred thousand strong, occupied Omdurman, and was already beating like the waves of a stormy sea against the ramparts of Khartoum. To-morrow, perhaps, would come the turn of Berber and Tehbali. In any case, all idea of retreat, either by way of Egypt or by the Red Sea, was at an end, since every communication was closed, and the Arab tribes were all astir. Darfour even had joined the irresistible insurrection of Eastern Africa against the hated European yoke. The hour so often foretold, and so long delayed, had at last come, and alone in the sea of uproar Tehbali stood solitary as an island, the centre of a circle three hundred leagues in extent, wherein raged the unchained violence of fanatical hatred and lawless passion.

Gertrude would not, however, give up all hope of seeing her father. Norbert and the doctor had been careful not to let her suspect the loving deceit whereby her father had managed to spare her the horrors of the siege, little thinking, poor man, that he had made the sacrifice of her society only to send her into still greater dangers. Gertrude did not know all this, and in her trustful simplicity she mounted up every day to the cupola of the observatory, like another Sister Anne at her tower, and swept the vast plain with the powerful glasses, in the vain hope of seeing the beloved form in the distance.

One day she saw, not him indeed, but a numerous troop of Arabs wrapped in burnouses, negroes armed with spears, a whole squadron of irregular cavalry, amid which gleamed the brass of two cannons, and the steel of five hundred sabres or guns.

She hastened forthwith to inform Norbert, who had no sooner verified the news for himself than Virgil received instant orders to put Tehbali at once into a state of defence. The cannons were loaded, the mitrailleuses put into position; the black guard drawn up on the esplanade in readiness to repulse an attack. Virgil, at the head of a detachment of twelve men, descended to the foot of the mountain, to form an outpost, with orders to fall back on the observatory if he were assailed.

Norbert surveyed the position through the telescope. At the expiration of about an hour he saw the enemy halt, and a little group of horsemen detach themselves from the rest and advance, waving a flag of truce. Virgil met them and led them along the Peak road. Norbert was soon able to distinguish the black faces of the newcomers, as their spirited little horses, shaking shaggy manes almost as long as their tails, galloped swiftly up the zig-zag route to the observatory. At the edge of the esplanade the troop stopped short, and the chief alone, accompanied only by a trumpeter, entered the hall, where Norbert, the baronet, and the doctor awaited him.

He was richly dressed ; the sabre that hung by his side was exquisitely embossed, and a sparkling aigrette sur-
mounted his turban. Norbert advanced a few steps to meet him, and, addressing him in terms of welcome, asked wherefore he had come to Tehbali.
"Art thou the chief ?" inquired the barbarian, in evident astonishment that no outward sign of authority was apparent about Norbert.
"I am the chief," replied Norbert with dignity; "who has sent thee to me ?"
"I come," said the Arab, drawing himself up to his full height, " on the part of the holy prophet, the most high and powerful lord, the Mahdi!"

He stopped as if to enjoy the effect he thought these words would doubtless produce. He evidently expected that at the sacred name of the holy prophet every head would be bowed in the dust. But instead of the respectful fear to which he was accustomed, he beheld a mocking smile on the doctor's lips, whilst Norbert, with the slightest of bows, simply asked,-
"What does the Mahdi want from us ?"
"This," said the Arab, with gleaming eyes ; "the Mahdi summons the giaours of Tehbali to surrender at discretion, and come to his camp at Omdurman, there to embrace the Mussulman faith."
"Only that!" . . . muttered the doctor to himself.
"And what right has the Mahdi to send us such a summons ?" asked Norbert, calmly still.
"The right of his divine mission!" answered the Arab. . . ."And for those who refuse to recognize this, the right of the strongest!" ...
" Well, then," replied Norbert, "go and tell your master that we know him not, nor wish to know him ; tell him that it is in nowise the part of a shepherd of men to provoke those who are not his enemies, and have never done harm to any of his ; add, moreover, that it is an intolerable piece of braggadocio to offer terms of capitulation before doing battle."
"Have I heard aright?" cried the Arab. "Darest thou defy the Mahdi after refusing his magnanimous offer ?". . .

## "I defy no one, but I ask to be left in peace to pursue my work."

"Woe to you!" . . . said the envoy. "Accuse no one but yourself of the ruin that shall overtake you!" . . .

Turning on his heel, he went off without another word to rejoin his escort at the edge of the esplanade, where he threw himself into his saddle and rode down the Peak road, turning round once towards the observatory with a threatening and insulting gesture.

He had scarcely gone out of sight round the first zig-zag when a great uproar arose on the esplanade. Virgil's voice was heard high above the rest in tones of violent rage. Norbert hastened to the spot, and found his trusty squire striving in vain to hold back the black guard, who were hurrying after the departing envoys. . . .
"The prophet has spoken, and we will not remain with the infidels !" said one of the negroes.
"It is a disgrace!" . . . retorted Virgil. "Desert your flag in this way!... I will blow out the brains of the first who tries to pass."
"Virgil," said Norbert, "no violence! Call Chaka at once and have two or three of these men put in irons."

But the negro burst into an insolent laugh.
"That's it," he said. "Call Chaka, and may all whom thou callest to thy aid respond as he will to thy appeal!" . . .

And before Virgil had time to guess his intention, he bounded over him like a panther, and hurried down the road.
"What does all this mean ?" asked Norbert.
"Nothing good, I fear," replied Virgil.
At the same moment Chaka came from the quarters of the black guard with the remainder of the men, and advancing alone towards Norbert, he said in a loud voice,-
"Lord of Tehbali, I had sworn fealty to thee. Thou didst spit in my hand, and Chaka respects covenants. But thou hast broken this one. The death of Kaddour lies between us. Thou art powerful, but thou art as nothing beside him who made the dhoura to grow before my eyes.

All is over between us. Strive not to retain us. Farewell! The Prophet calls, and we obey his voice!"

Norbert saw at a glance that there was nothing to be done in the face of such a decision. Had these men attacked him, he could have met force with force ; but what could he do to free lances who simply refused service and forswore their contract? He went back to the hall in silence, whilst the black guard defiled before Chaka and went off down the road.

This defection rendered matters very serious. At the head of a compact little troop, Norbert might have defied the Mahdi. But now that he had only himself to depend upon, and the assistance, such as it was, of the doctor, the baronet, Virgil, and Tyrrell, diplomacy appeared the wiser course to adopt. He made up his mind, therefore, to send Mabrouki at once to the Madhi's camp to offer to treat on honourable terms-to pay, if necessary, double the amount of tribute that he had paid the Mogaddem, so as to be left in peace to go on with his work. He had learnt by experience that European gold was almighty even in the desert, and he thought it best to try every measure before proceeding to extremes. Mabrouki started off, with orders to reach Omdurman before the envoys, if possible, and with full powers to negotiate with the Mahdi.

Meanwhile the garrison of the observatory was reduced to five men; and there were three prisoners to be guarded in the glass furnace at the foot of the mountain.

But the departure of the black guard was not to be the only disaster caused by the visit of the Mahdist envoy. It was followed by the loss of the greater number of the navvies and glass-makers, who left the workshops in crowds, whether to join the Mahdi or from fear of his vengeance should they remain at Tehbali, no one knew. But it was certain that the working population decreased to such an extent that, instead of 104 glass foundries in active work, as heretofore, now only forty could be kept going.

It was a cruel deception to Norbert, just when the sheet of glass under Tehbali already overflowed its circumference by 3 Io degrees, so that ten or twelve more metres would
have completed the isolation of the Peak. In spite of his courage, Norbert could not but feel this bitter disappointment. He was almost disheartened. So near the completion of his efforts, with every reason to believe that a week more of regular work would suffice to accomplish the end he had in view, and, on a sudden, to find himself deserted by the best men in his army of workers! . . . It was enough to crush him! . . .

He thought night and day how he could possibly, by mere force of will, overcome this new difficulty ; but it was all in vain; look at the question from whatever aspect he chose, no substitute offered itself for the missing hands, and he was at his wits' end. Day by day he grew thinner and paler, and he could not sleep at night from anxiety and worry of mind. The bitterness of failure would not be his alone ; it affected science and the honour of the French name, over which the great experiment, if successful, would shed so great a lustre, not to speak of the unfortunate shareholders who had so confidently entrusted him with their money. . . . So much trouble and hard work! Was it to be all in vain, and the money thrown away!... Norbert could not face such a contingency.

Sir Bucephalus took things philosophically, according to his usual habit.
"I shall certainly win my bet," said he gaily to Norbert.
The words were hardly out of his mouth when Virgil rushed in, out of breath.
"Grand news, sir! . . . The sheet of glass has overflowed on the west side!"

This was the part still left dry.
The fact was of the greatest importance, and Norbert hastened, breathless, to the foot of the mountain, in order to verify the news. It was true. . . . The sheet of glass had at length filled up the depths under the centre of the pyritic base, and had joined the other end of the circle, thus making it complete.

The liquid stream overflowed the rocky mass, and lay before them, surrounded by the sand-heaps, in a glutinous, soft sheet, that soon would be hard and vitrified. It was
done. There was no more doubt about the matter. The Peak of Tehbali-the enormous rock of bisulphate of ironwas isolated from its sandy subsoil by a sheet of glass. It was isolated from the terrestrial globe itself.

There, at length, was the colossal magnet dreamed of by Norbert Mauny. It lay before them an inert mass seemingly, but yet full of power, that wanted only the stimulus of electricity to render it irresistible. And this would be supplied without delay, if need were. Everything was in readiness. Norbert had but to give the order, and the solar heat condensers that stood stationed at intervals along the circular passage would set all the dynamos at work. The least sign from him, and the lever would act on the Motor A and establish contact. At last, then, the magnet of Tehbali was a reality. Nay, it was more; it was a new agent among the enormous forces that regulate the planetary system!...

The success, although foreseen, was dazzling indeed, and Norbert might be pardoned an involuntary sense of proud self-satisfaction at so complete a realization of his aspirations. He recovered his usual calmness of demeanour, however, before reaching the others again, and, when he entered the observatory, he told Virgil simply to bring up all the heat-condensers, as they were no longer needed below.

In the Hall of Motors sat Sir Bucephalus, reading Browning's last poem. Norbert came up to him and said, "Sir Bucephalus, just now you spoke of expecting to win your bet. . . . I would advise you to cancel it if you can, for, unless I am very much mistaken, you are about to lose it!"
"Cancel my bet!" cried the baronet. "I only wish I could double it! It is well worth my while to do so, especially now the Mahdi is increasing my chance of winning." . . .
"What do you mean ?"
"That, on looking through the telescope to see how matters were going on below, I saw the glitter of arms from the south to the east of the plain, banners floating in the
wind, gaily-caparisoned horses ; whole tribes, in fine, winding along, like so many serpents, through the sandy desert. I heard the distant mutter of an advancing army bent evidently on invading us !... If I am not much mistaken, we shall be besieged before two days are past, and we shall soon be dead, unless we capitulate and embrace the Mussulman faith, which does not commend itself to me for my part!"...

## CHAPTER XVIII.

## TYRREL SHOWS HIS HAND.

The baronet was right. Surely, if slowly, was the Mahdist invasion spreading on all sides. The inhabitants of the desert are very methodical in all their doings, and always take time to look before they leap; but still the circle was gradually closing in round Tehbali. In three days all the approaches were blocked, and camps of observation were to be seen posted on all the surrounding heights. The Peak was now completely invested.

But our friends had not been idle. All the condensers had been taken up to the circular passage. The connecting wires of the electro-dynamos were in readiness to be attached to the shafts moved by the pistons of the cylinders in the centre of each conical mirror. It only rested with Norbert to order the contact to be established, and in less than ten minutes the grand experiment would begin.

Strange to say, our young savant hesitated at this last moment. He actually shrank from putting the final touch to the work he had so ardently and patiently carried out. He said to himself,-
"Who knows but that, after all, I may have made a mistake ! . . . It is true that I have made every possible calculation, and, as I think, have foreseen every contingency. . . . But what if some forgotten detail should subvert the whole theory, and give the lie to all my expec-
tations! . . . How could I bear to see such a humiliating and shameful end of all my plans . . . and before Gertrude, too, who believes in me! Before the baronet, who does not believe in the affair! ... Before the formidable Mahdi, and in the face of scoffing Europe herself!... What if my success should be but partial, on the other hand, and just save my self-conceit, but fail to realize the scheme in its entirety!" . . .

When these thoughts assailed him, Norbert dared not believe in success sufficiently to venture the final effort. It was in vain that he tried to reassure himself by the reflection that the only chance of saving Gertrude, or her father, with the rest who were shut up in Khartoum, was to terrify the Mahdi's army with the spectacle of the moon drawing near to the earth. Such a portentous sight would in all probability frighten the troops into disbanding. . . . All this, and a great deal more, did Norbert repeat to himself; he could not make up his mind to the final act, but waited until he should be forced, as it were, to play his last card.

Another consideration encouraged him in his passive attitude. The moon would not be in perigee-that is to say, nearest to the earth-for another sixty-seven days. It was evident that the experiment would have a greater chance of success then ; and prudence, therefore, counselled delay, unless, indeed, some unexpected turn of events forced him to precipitate matters.

The unexpected soon came, however.
On the sixth day after the arrival under the walls of Tehbali of the left wing of the Mahdists, who had turned aside from the siege of Khartoum to assail the Peak, it became evident that an assault was preparing.

Horsemen went and came from one camp to another ; tribes formed themselves into columns; tom-toms resounded on every side, and thousands of weapons gleamed in the sunshine. On a sudden one of the columns got into marching order, and drew towards the village of Tehbali, now entirely deserted by its inhabitants. Theother columns proceeded eastward and northward in the direction of the Peak.

There was not a moment to be lost in checking this movement. One of the cannons behind a little earthmound on the esplanade was pointed on the village, which the south column had now almost reached.
"Fire!" said Norbert.
The cannon-ball flew through the air, and fell, bursting behind the attacking column. It was not a bad shot for a first attempt. None of the assailants were hit, but they were panic-stricken by the tremendous noise in their rear, and they all fled in disorder. The other columns followed their example.

It was just what Norbert had hoped. The besiegers could not have expected to meet with artillery, the cannons until then having been hidden away in the magazines or behind earth-mounds, and the unforeseen check served to damp their warlike ardour.

For two or three days they gave no more sign of life. Soon, however, they were seen working hard at planting cannon batteries on the adjacent heights, and on the seventh day of the assault one of these batteries opened fire.

Not a single cannon-ball so much as brushed the observatory, which stood much higher than the guns of the besiegers. But several projectiles fell upon the furnaces and the other buildings at the base of the Peak, and it was clear that the enemy aimed especially at destroying the works.

This was too much for Norbert's philosophy. His lonely plateau was to him the whole world, and so, on the second day of the bombardment, he resolved to go and see for himself what harm had been done. Taking advantage of the time of siesta, when even the cannon's voice was silenced, and all the world slept, besiegers as well as besieged, he went alone, and on foot, cautiously down the mountain.

There was not much harm done, but still quite sufficient to disquiet him. He came to a sudden resolution to try the final coup at once.
"Virgil," he said, on his return to the summit, "fasten
the connecting wires to the shafts of the solar heat-condensers. I am going to see how our friends the Arabs will like the celestial phenomenon about to appear over their heads."

It was now forty-eight minutes past two o'clock. A scorching sun shone right down on the Bayouda Desert, and both sides were still indulging in the indispensable siesta. Virgil set about his work undisturbed by aught save the distant thunder of the cannon afar. The bombardment was chiefly carried on at night and morning. Not that Virgil would have much minded a cannon-ball now and again flying round his head - he was not easily disturbed, as we know. At the end of half an hour he returned to the Gallery of Telescopes, where Norbert was observing the heavens, and announced that all the heatcondensers were at work.

According to the calculations of the young savant, it took five minutes for the maximum effect of the machines to be attained, and a quarter of an hour to charge the electric accumulators. This done, the action could be kept up continually day and night.

Norbert waited twenty minutes, watch in hand, and then went to the Hall of Motors.

Here he found Sir Bucephalus reading the last number to be had of the Times.
"You have forgotten a very important point, my dear Mauny," he said. "We ought to have established a pigeon post to bring us the latest news. . . . If we only had that, I should not much mind the siege so far."
"The siege will soon be raised," replied Norbert, smiling. "I have made up my mind to act, if it were only to terrify those wretches."

Sir Bucephalus looked at him speechless with surprise and curiosity. Norbert simply walked to the right wall, took hold of the ivory knob of the Motor A, and slowly lowered it. An electric tinkle was at once heard.
"Contact is made, and the experiment commences," said Norbert, with more emotion than he cared to show. "It is now," he continued, looking at his timepiece, "exactly
thirty-eight minutes and fourteen seconds past three o'clock."'

The baronet waited a little while before speaking. Then finding that the little electric tinkle had ceased without any apparent result, he walked to the window, stifling a laugh.

At that moment the moon, in her first quarter, appeared in the horizon, plainly discernible although pale, as it was still broad daylight.
"It seems to me that the Queen of the Night wants a good deal of pressing, and does not trouble herself about us much !" said he, turning round to Norbert.
"Good heavens!" cried the latter. "Do you really think that I expected the moon to come when I call her, and be here in three seconds, like your valet when you summon him ?"
"Deuce take it!" said Sir Bucephalus.
"You are making a slight mistake," continued Norbert. "Matters cannot go quite so fast. Have you forgotten the distance that separates us from that blessed moon? . . . It will take her not less than six days, eight hours, twenty-one minutes and forty-six seconds to come down to us, if I have calculated rightly. . . You see we have plenty of time to prepare to receive her!"

The baronet said nothing, but was evidently far from being convinced. Norbert did not insist.
"Excuse me," he said, a moment later; "I am going to take a measurement with the telescope."

Going into the Hall of Telescopes, he seated himself at his place of observation in order to make a note of the micrometrical measure of the disc as it appeared then. No further allusion was made in the course of the day to the progress of the experiment.

Night came. The condensers had naturally ceased to work when no longer supplied with caloric by the sun. But the electrical accumulators, set in motion by the simple turning of a tap, had automatically supplied the place of these machines, and so the magnet of Tehbali was constantly fully charged, as shown by the magnetometer.

Every one retired to rest at midnight, as usual, with the exception of the doctor, who was on guard on the esplanade to keep a look-out on the movements of the enemy, and Norbert, who chose to keep him company.

The moon set at nineteen minutes after two in the morning. Just before she reached the western edge of the horizon, Norbert left the doctor, and went to the observatory in order to take a fresh measurement. He immediately discovered that its diameter was increased by the thirtieth of a degree.

He would have been very much surprised not to have made this discovery. . . . And yet he had doubted up to this very moment ; but now all doubt was at an end for ever. In less than eleven hours the moon had already come appreciably nearer to the earth, if not to the naked eye, at least through the telescope: such was evidently the simple fact. The problem was solved. The undertaking was accomplished. The magnet of Tehbali was having the expected effect, and by its added power increasing the attraction of the terrestrial globe.

Norbert was at first almost stunned by the startling success of his efforts. Joy took his breath away for a time, so to say. Then set in a reaction. He walked about the gallery in an agitated manner, talking out loud to himself, saying that the discovery he had made in the silence of that starry night in the desert would prove to be the greatest event in history ; that henceforward the planetary world would offer a boundless field to human activity, and the other globes, like the moon, would soon have no secrets from the inhabitants of earth. . . .

He must have been in a kind of vertigo all night, for on waking in the morning he found himself stretched on a sofa, head aching and limbs bruised, without any recollection of how he came there.

He ran to the magnetometer. The tension was still at the maximum. The sun was rising, and would soon set the parabolic mirrors in action. There was no reason why the experiment should not go on to the end by itself. And yet how impatiently did the young astronomer await the
return of the moon! She rose that day at thirty-six minutes after four o'clock in the afternoon. Long before the time Norbert had his eye glued to the telescope, in readiness to take a fresh measurement. No sooner did she appear above the horizon than it became perfectly clear that it would be quite useless to take a micrometric measurement, for since the eve her diameter had more than doubled. She now described an arc of $I^{\circ} 6^{\prime} 28^{\prime \prime}$.

The increase was so remarkable that every one was struck by it. Soon groups of Arabs stood about the plain, contemplating the moon with astonishment. Doubtless they considered the phenomenon to be a favourable augury, for they did not seem in the least terrified.

At three o'clock in the morning, shortly before the moon set, Norbert discovered that her diameter had again increased, and now measured nearly two degrees.

He had grown accustomed to success ; after his observation this time he went quietly to bed. As to Sir Bucephalus, he had said nothing all the evening, and seemed not quite to know how to take the singular phenomena.

On the third day the moon appeared in the east at fortytwo minutes after five o'clock. At once they saw a vast difference between the comparatively small planet of the eve and the enormous disc that now loomed in the heavens. It was not as yet very bright, the sun now being in the west, but the circumference was immense : the moon now described an arc of nine degrees! That is to say, forty full moons of this dimension would have sufficed, if close together, to fill up the entire circumference of the horizon.

When evening came, and the sun, having set a little before seven, left the enormous lunar globe reigning alone in the heavens, a feeling of indescribable dread came to all who looked at her. She was, be it remembered, only as yet in the eleventh day of lunation.

In the abnormal moonlight, almost as bright as day, they could discern from the top of the terrace the fantastic behaviour of the Arabs in the plain below. Prostrated on the earth with extended arms. the Mahdists were
evidently disturbed. The sound of the tom-tom could be plainly heard, inviting them to prayer, and in the still evening air the voices of the imams and dervishes floated up, as in deep earnest tones they implored aloud the Divine protection. These supplications went on all night until about thirty-seven minutes past three in the morning, when the moon disappearing beneath the horizon, the Arabs concluded that their Prophet had heard them, and had blessed their cause.

This assumption on their part was a disappointment to Norbert. It was clear that they had been terrified, yet not sufficiently so to make them give up their enterprise. Doubtless they had argued that this terrible moonlight would follow them everywhere ; there was no escaping it. Or else their chief had managed to make them look upon the phenomenon as a good augury, a sign of the protection that Heaven accorded to its new Prophet.

Howbeit, when the moon rose on the following day at forty-five minutes past six in the evening, occupying twenty-one degrees, or nearly a quarter of the half circle of the horizon, the Arabs recommenced their salaams and prayers, but evinced no intention of raising the siege of Tehbali.

And, in fact, the spectacle now offered to their contemplation was rather magnificent than frightening. The moon now filled up, so to say, all one side of the heavens, with the exception of a blue space between her edge and the horizon. She was nearly round, and white as milk, the protubcrances on her surface standing out plainly. With the naked eye could be seen chains of mountains, plains dotted over with peaks and craters, great blue spaces that were either oceans or deserts, coasts bristling with cliffs, frowning rocks and deep abysses.

With the telescope far more was discernible. The least details of the landscape appeared as plainly as does the earth when viewed from a balloon at the height of two or three thousand metres. The most striking characteristic of the landscape was its complete dearth of oceans and seas, or even rivers or lakes.


The Mahdists were evidently disturbed.

Large tracts of land seemed to be covered with a dullishred vegetation, similar to the tints of our forests in autumn. But neither towns, buildings, nor monuments of any sort were to be seen ; which, however, was in nowise a proof of their absence, for the distance was still too considerable to have discerned an edifice with any certainty, were it even as lofty as the Pyramids of Egypt.

Any doubt that Gertrude may have entertained concerning the correctness of the lunar photographs adorning the observatory walls was now entirely dissipated, for in the planet now drawing so near she beheld all the notable features of the lunar map as photographed, standing out clearly and distinctly. The evening was passed in admiration of these marvels, until a little before midnight, the edge of the disc having reached the western horizon, the planet began slowly to disappear, an operation that lasted four hours, and took twenty minutes longer than had been the case when it rose in the morning.

They had reached the fifth day of the experiment, and no one had seemed to be disturbed by it hitherto. The Arabs had become so accustomed to the phenomenon, that it was now only by way of a formula that they continued the ceremonies of the first evening, while as to the besieged, they looked out for the moon each evening with the utmost impatience to examine afresh the marvels displayed through the telescope. But when that evening, at forty-four minutes past seven, the planet of the night appeared on the eastern horizon, every one was transfixed with awe at its formidable appearance. It now occupied more than half the circle ; or to speak more correctly, the diameter now described an arc of 182 degrees, fifteen minutes and twenty-two seconds.

What was still more alarming, only the edge of the disc now was fringed, as it were, with a silvery light, whilst all the rest appeared an immense solid dark body, whose convexity was clearly perceptible. For the first time one had the impression of a monstrous globe coming to meet the earth.

And yet, as Norbert explained to his friends, they would
not have felt this impression if the globe had not still been at a considerable distance. But all the same they, like the Arabs, suffered from an unusual feeling of oppression, so long as the globe hung over them; and when, at thirty-three minutes past four in the morning, the heavens showed only the pale light of stars, each one breathed more freely as if a load were lifted off him.

The sixth evening came. It was the last, since, according to Norbert's calculations, the descent of the lunar globe was to take six days, eight hours, twenty-four minutes, and forty-six seconds. The moon rose slowly, gradually filling up the whole sky. The sight was, indeed, horrible. Absolute and complete darkness reigned everywhere, with the exception of a silver band, as it were, that surrounded and held the moon still above the earth.

In the Arab camp terror was at its height. Silence prevailed where heretofore the criers had made the air resound with their shrill voices. The very dogs held their peace. Every man had retired to his own tent, where, prostrate in the dust, he waited for death. The thick darkness that could be felt, terrified the Mahdists more than anything else. The moon had of a certainty disappeared for them. Yet they did not seek to fly, but remained motionless and apathetically resigned to the unprecedented catastrophe that had befallen them.

On the Peak of Tehbali the alarm was general. Norbert was almost the only one who kept his self-possession. Sir Bucephalus tried to maintain his usual British coolness, but, in spite of himself, the growing uneasiness he could not but feel, manifested itself by continued comings and goings, and many questionings. The baronet was by no means a coward, but life was sweet to him: he was very fond of his club, and often thought, with a sigh, how much he should like to be back there. He had only joined this expedition in order to have some adventures to relate, and necessarily he must survive them, otherwise how could he relate them ?

The doctor took things cheerily, according to his usual habit; but in petto he could not help querying how it
would all end. Virgil never dreamt for a moment of sitting in judgment on the doings of his "superior officer;" but he thought the sky uncommonly black and threatening. Tyrrel gave full vent to his disapprobation as far as the etiquette of respectful service would permit, and took care not to show his nose outside the door. As to Fatima, she cried bitterly, and Mdlle. Kersain had much ado to console her, especially as she was far from being easy herself.

Matters went on tolerably well, however, until midnight. Every one was in the Hall of Motors, and Tyrrel had just brought in the tea. Norbert, who had been to look round on the esplanade, now came back, and going over to the electric lamp that hung over the table in the centre, he drew out his chronometer and said,-
"It is two minutes past midnight. Either I have miscalculated (which I do not believe, since all my accounts tally), or else contact will be established within a minute and twenty-five seconds."
"What contact?" asked the baronet.
"That of the lunar globe with the earth."
"What!... you really expect this contact to take place ?"
"Of course I do. What would be the sense of the experiment otherwise ? I transformed the Peak of Tehbali into a magnet on purpose to force the moon to come down to us. Do you want me now to forego the pleasure of making her acquaintance, and send her back into space?"
"You could do it, then ?"
"With the greatest ease. Simply by means of that ivory knob yonder, marked B."
"What! : . The action of your magnet could be suspended simply by touching the motor B ?" cried the baronet, evidently startled.
"Not precisely by touching it, but by lowering it and raising the motor A."
"In that case, my dear friend, I am of opinion that you had better use your power, and stop this dreadful experiment without delay."
"There are very good reasons, my dear Coghill, why I should not follow your advice."
"Then the moon is about literally to fall upon the earth?"
" Just so."
"Will it not be a frightful shock ?"
"Yes, for those who happen to be between the anvil and the hammer certainly!... But everything combines to make me think we shall not be the victims. It is the chain of the Lunar Apennines that will come into contact with the soil of earth, at about a hundred leagues off, striking the Sahara desert from the north-east to the south-west. I expect that we shall feel a sharp shock, but nothing more, and I took care purposely to build the observatory only one story high, that it might have more powers of resistance."
"And supposing you should be mistaken? If the shock does fall upon us?"
"In that case, of course, we shall be crushed. But I have not made a mistake. . . . I don't know that we should be better off massacred by the Mahdi, moreover, for at all events we know what we have to expect," added Norbert, as he looked at his chronometer again. . . . "In twenty-two seconds and a half," he continued, "I expect!
"I still think it would be much wiser to stop this experiment," interposed the baronet.

No sooner had he uttered these words, when Tyrrel, as if this had been an oracle long waited for, flung himself on the ebony tablet, and before any one suspected his intention, he had seized the knob A with his right hand, and with his left the knob $B$, and raising the former he lowered the other. . . .

Norbert had but just time to rush upon him, exclaiming aloud in his anger and despair. . . .

It was too late! . . .
A fearful explosion ensued, followed by an uproar and din that can only be likened to the noise of a thousand volcanoes, or the roar of a million cannons! There was
one terrible shock, followed by a darkness sudden and complete! The unfortunate actors of this drama sank into the insensibility of syncope or death. . . .

Norbert had just strength sufficient to cry aloud,"Gertrude!"
But his voice had scarcely died away in the tremendous noise that prevailed ${ }^{1}$ when he lost consciousness of the disaster that had befallen all alike.

## CHAPTER XIX.

## AFTER THE CATACLYSM.

IT was broad daylight. A deep silence reigned in the Tehbali observatory, when at length Norbert opened his eyes. The intensity of the silence was indeed remarkable. It was in the strictest sense, a deathlike silence.

The day was a brilliant one, and the heat quite overpowering.

At first Norbert had some difficulty in recollecting what had happened.

He found himself on his back, thrown down doubtless by the first shock of the cataclysm, on an Arab divan underneath the ebony shelf in the Hall of Motors. Everything around was in disorder ; the furniture scattered about, and the electric apparatus twisted, while the magnetometer lay on the ground broken, as also were all the objects made of
${ }^{1}$ The Annuaire au Bureau des Longitudes noted the disturbance this cataclysm caused in the tides; but for some unexplained reason the expanse of waters on the ocean do not appear to have felt the disturbance in like proportion.

It appears, also, that from the very commencement of the experiment a thick curtain of clouds, formed probably by the lunar attraction, intervened between the heavens and the principal terrestrial observatories. The Soudan alone was clear, thanks to the dryness of its atmosphere, and was enabled thereby to note and follow the phenomena. Seamen and physicists in both hemispheres noticed the defection of their compasses and instruments during these six days, but were at a loss to understand the reason.
porcelain. Mdlle. Kersain, Fatima, the doctor, the baronet and Tyrrel lay round about, some on the sofa, where the earthquake had found them, the others on the matting that covered the floor.

Norbert's first care was to fly to the assistance of Mdlle. Kersain, whose name, as we know, had been the last on his lips. She was in a deep swoon, but otherwise apparently unharmed. Her pulse beat feebly, and a faint sigh came through her half-opened lips. From her Norbert instinctively turned to the doctor. He was crouched under the arm-chair, where, when the shock came, he had been quietly drinking his tea. Seemingly his alarm had passed off into sleep, for Norbert just touched him on the arm, and he awoke, rubbing his eyes vigorously, and looking about him in evident astonishment. He jumped to his feet, but for a minute was silent as if stupefied. Then turning to Norbert, he said,-
"What the deuce has happened to us ?"
"I could not say," replied the young man ; "but it is a blessing to see you up again, my dear doctor. Come to your niece first. There she is, quite unconscious."

Letting himself be led to the sofa, the doctor took the young girl's hand and felt her pulse, mechanically, as it were, standing there silent and motionless, as if he had no power to speak.
"Her pulse beats, at all events, does it not ?" impatiently asked Norbert, who had seized her other hand. "What ought to be done?" he added.

With, as it seemed, a tremendous effort of the will, the doctor muttered dreamily the one word,-
"Medicine chest!"
Norbert understood. He ran into the adjoining office to fetch the chest, stumbling on the way over Virgil, who lay insensible on the floor, and quickly hastened back to the doctor and Gertrude.
"What medicine shall I give you," he asked, as he pressed the spring lock.
"Sulphuric ether," answered the doctor dreamily.
Seeing that it was useless to ask for fuller instructions,

Norbert took the little flask so inscribed out of its felt case, and held it under Gertrude's nostrils, moistening at the same time her temples and forehead. The rapid evaporation of the fluid was instantly followed by a sensation of freshness, which soon revived the young girl. She opened her eyes, sat up on the couch, and looked about her with astonishment.
"Fatima!" . . . she murmured faintly on seeing her little companion still insensible.
"She is unconscious, as we all were five minutes ago," said Norbert, as he went up to the little maid and administered ether to her also. "But she will soon revive. Look!" he added, "she is waking up!"
"Fatima!" repeated Mdlle. Kersain.
"Little mistress !" replied the child, trying to draw near her.
"Poor little girl, you were very frightened, were you not?"
"Oh, yes ! . . . dreadfully frightened! But it is all over now! See, little mistress, I can walk again already!"

She made two or three steps, and flung herself into Gertrude's outstretched arms.

Norbert had gone off to attend to the baronet. "He is stunned only, like the others, and you don't seem to be quite yourself, doctor, even now," continued Norbert ; "a good dose of ether will not do you any harm."

So saying, he suited the act to the word, and brought the doctor round with his own remedy.
" It is true," said Dr. Briet, "I do feel quite dazed still. Many thanks, dear Mauny, for your attentions! Now we must see after Coghill. His pulse is marvellously weak, quite threadlike, in fact. However, let's hope he will be all right! Better rub his head with brandy, I think! . . . I will do it if you will attend to the other one."
"To that individual there who was the cause of all this topsy-turvy business? Do you think I am going to attend to that idiot. No! Virgil comes before Tyrrel, indeed! I shall look after him first."

Hastening into the adjoining compartment, Norbert raised that worthy fellow from his hard couch on the floor, and rubbed and shook him till at last he showed signs of life.
"Halloa! It is daylight! And we are still alive!" cried Virgil, awakening to the consciousness of his surroundings. "By Jove, I didn't expect, sir, that we should, any of us, survive that terrible earthquake!"

As soon as he was quite restored, the good fellow hurried to the Hall of Motors, where he began to arrange and put everything in its proper place again.

Meanwhile, thanks to Doctor Briet, both Sir Bucephalus and his hopeless model valet were once more astir. The latter's personal appearance was not improved by an enormous bump on the forehead. He sat up on the matting, and stared about him aimlessly, without apparently realizing that he was the direct cause of the catastrophe by his servile haste to execute his master's least wishes. As soon as he could speak, he asked, in doleful tones, for a glass of port wine.
"The bottle is on the sideboard to the left," he added. It was a proof that his practical mental faculties were unimpaired.
"Give him his glass of port, Virgil," said the doctor, laughing at the characteristic trait. "And give us all some, too."

Virgil fetched the bottle and glasses, and helped everyone all round.
"I propose the toast of our own health!" cried the doctor. "I am sure we have every right to drink to it after such a tremendous shock!"

Gertrude and Fatima joined in the toast, and were much the better for it.

Now that every one was in some degree restored, they could talk it over.
"I really don't know why we should keep the windows closed," said Norbert. "The heat is suffocating!"

No sooner, however, had he thrown open the two French windows, when a violent gust of wind blew them
too again. This was very odd, for the current of air came from within, and every other opening was still closed. Norbert was looking round to find out the reason, when Mdlle. Kersain called out from the other window,-
"What a very extraordinary view! I never saw anything like it! The earthquake must have turned everything upside down all round us!"

Every one ran to see what had called forth such a statement.

The changes were indeed most extraordinary. In place of the yellow sandy plain that formerly stretched in uniform monotony almost to the very foot of Tehbali, broken only here and there by a few undulations, they now beheld a kind of abyss whence rose up sharply. defined serrated mountains of most forbidding aspect.

It appeared as if at some time or other the crust must have given way under the influence of gigantic subterranean forces that had torn up the surface of the soil and redistributed it in strange, weird, fantastic forms.

Bright red, staring yellow, pale blue, and violet-coloured rocks stood out on every side in a medley of colours that was far from pleasing to the eye. In the ravines that separated them flowed larva of every hue, similar to that found on the summit of Vesuvius and Etna. It was, in fact, evident from the walls of rock surrounding the abysses that they were looking upon real volcanic craters, now extinct and silent.

There they were side by side, of every imaginable height and size, some ten, twenty, a hundred yards apart; others, at still further intervals, down to the edge of the horizon, which appeared a good distance off.

It was impossible to estimate the distance properly, for, by a strange optical illusion, the rocks that were furthest stood out as clearly as the near ones, down to the least little detail.

Instead of diminishing gradually to the vanishing point, they were so boldly defined against the sky, that it seemed almost as if it were possible to touch their bright-coloured edges.

Another remarkable circumstance was that the shadows were as clearly portrayed in the blinding light as were the rocks themselves. They were all as black as ink, without any graduation or penumbra.

The whole aspect of the landscape was more sad, terrifying, and spectral than can be conceived. There was no trace of life anywhere. Neither bird, bush, nor blade of grass was to be seen; nor was the silence broken by the sound of any trickling brook. The impression left upon the mind was that of utter solitude, desolation, and death.

Another strange phenomenon was to be noted. Although the sun shone in the full blaze of his meridian splendour on the bare and dreary waste, myriads of starry constellations were apparent in the deep gloom of the sky. The effect was startling. It was similar to that produced by lighted candles round a funcral bier in broad daylight.

As to the hostile Mahdist and Arab camps that had encircled the Peak of Tehbali, they were nowhere to be seen! All trace of them had disappeared. The cataclysm seemingly had swallowed up tents, earthworks, cannon batteries, men, and beasts !

But the strangest fact was the great height from which they now looked down. It seemed as if, in the general upheaval, the earth at the foot of the mountain had shrunk at the same time. This was the general impression. Their eyes had been accustomed now for a long while to the vertical distance of fifteen or sixteen hundred yards separating them from the plain ; but this was something quite different, for they looked down now from a height of at least three or four millions of yards, perhaps even more.

Excessive amazement kept them all silent. They were spellbound in front of the terrible panorama before their eyes.

On a sudden, Norbert darted to the door and ran on to the esplanade, as if a new idea had struck him. But he had taken only a few steps when he felt himself greatly oppressed. The blood mounted to his brain, he gasped for breath, staggered, and had but just time to get back to the observatory. He was on the point of suffocation. As soon
as he got indoors, he felt relieved at once. His lungs resumed their function, and he breathed freely again. To the general surprise, Norbert now rushed to the half-open door, and slammed it violently ; then, hurrying to the two windows, he carefully stopped up every crevice with all the bits of linen he could lay his hands on.
"What are you doing?" said the baronet. "Are you afraid of a draught?"
"I am hoarding up the little amount of air that we have," answered Norbert. "When we have used up what we have now, we shall have no more!"

They looked at each other with some curiosity.
Had the catastrophe, perchance, turned even M. Mauny's well-balanced brain ? or was he under some temporary hallucination?

He read this thought in the doctor's eyes, and could not repress a smile.
"Oh, make yourselves easy," he said, "I am not mad. But I have something to tell you which is of much greater importance, and that you are far from having the least suspicion of! Mademoiselle," he continued, turning to Gertrude, "are you strong enough to bear a great surprise and, I fear, a painful one, too ?"

Gertrude grew pale ; but she looked at him bravely.
"Speak on," she replied, with her usual calm dignity. "I promise to be courageous, whatever it is."
"Listen, then. Awhile ago you were remarking upon the extraordinary changes in our surroundings: you attributed them, and doubtless you still attribute them, to the catastrophe that had nigh been the death of us all? Well, it is no such thing! Nothing has changed around us. .. . It is we who have changed place. We are no longer in a state of siege, we are castaways!
"We are no longer in the Soudan, we are no longer in Africa, nor even on the terrestrial globe!... We have been transported . . , to the moon!"
"To the moon!" cried Sir Bucephalus. "Do you mean to say that the rocks and craters around us are part of the lunar landscape ?"
"Precisely so," replied Norbert. "I have not yet studied the question sufficiently to be able to tell you how it has happened that the disaster has transported us and all our belongings from the plateau of Tehbali to a lunar plateau, but there can be no doubt that the sudden shock and subsequent retrograde movement of our satellite at the very instant when she came into contact with the earth, must have caused latent volcanic forces to explode with great violence. We were blown into the air, and then drawn up by the attraction of the moon."
"That is only an hypothesis of yours."
" But the fact remains that we are actually transplanted to a new world, separated from our own by an immense distance ; and there is every proof that this new world can be no other than the moon!
"You can see for yourselves that everything now before your eyes is quite different from an earthly landscape! ...
" For my part, as I have just been out, I can affirm that the exterior atmosphere (if, indeed, it exists at all) is absolutely unbreathable."
"In one word," said Gertrude gently, "you have come to the conviction that we are on the moon ?"
"I have so little doubt of it," replied Norbert, "that I have already taken the most pressing measures for our safety by hermetically sealing up our doors and windows."
"Well, well ; there is nothing so very dreadful about it, after all," said Gertrude cheerily, to reassure the terrified Fatima; "it was always your intention to get on the moon if you could."
"Dreadful! . . . Dreadful!" . . . cried the baronet. "The prospect, anyhow, is far from cheerful, if it is true, which I am not at all sure about yet. One wouldn't mind the fact of being on the moon ; but it is quite another thing to be without air! . . . And when I think that we owe it all to that imbecile!" he added, with a furious look at Tyrrel.

The unhappy valet was already sufficiently terrorstricken at finding himself on the moon, and now to be blamed for it , in the righteous indignation of his master
was quite too much! His knees gave way under him, and he sank in a heap on the ground, muttering between his teeth,-
"Imbecile! . . . Imbecile!" . . .

## CHAPTER XX.

## A Strange country.

WHEN they had somewhat recovered from their first surprise, and Tyrrel was restored to his usual condition, Norbert was assailed with pertinent inquiries.
"If I have understood rightly," said the doctor, "you maintain that we are now breathing the air we brought with us in the observatory?"
" Just so."
"And that once this is consumed we shall have none le't ?"
" Doubtless."
"But how, in that case, are we going to breathe ?"
"How ?" repeated Norbert laughing. "Why, we must make our own air! Have we not a supply of chemical products on purpose? By-the-bye, I must go and overhaul them. "I am rather anxious to see how we stand as regards stores."

Followed by the doctor and Gertrude, who insisted on going too, the young savant proceeded through the Hall of Telescopes (which evidently had not suffered much from its displacement) to the store rooms, where he found everything in much better order than he had expected. There were a few breakages, but nothing of importance. The shock had done hardly any damage. The implements especially were absolutely intact; most of them were fixed into the soil, and the cases of special apparatus were as perfect as the day they left the workshop of the manufactory.

There were two or three dozen of these cases of "oxygen
respirators." Calling Virgil to assist, Norbert undid several of the cases, and took them to the laboratory to put them into working order. The fabrication of oxygen is one of the most elementary and rapid operations of chemistry. It does not take more than ten minutes.

When the reservoirs were filled with gas, Norbert fastened one on his back by the leather straps attached to it for the purpose, which made the thing look like a tin panier surmounted by a large leather bag. This bag was fastened under the left arm by an appendage which, when squeezed by the elbow, expelled a certain quantity of the oxygen into an indiarubber tube. The tube was connected with the nose and mouth of the wearer of the apparatus, and fitted tightly on his face by means of a copper mask furnished with pads of chamois leather.

Thus equipped, Norbert provided himself with a mariner's compass, a spy-glass, and a rifle, and returned to the drawing-room.
"May I ask who you are going to war with, my dear friend ?" asked the baronet, feeling the need of a little diversion from his melancholy mood.
"I am only going to explore the surroundings," answered Norbert. "Something is puzzling me, and I must find it out. I can't quite see how we can be on the moon and in our own observatory at one and the same time. The whole summit of Tehbali must have been carried off bodily. ... I'll make it all clear, however, within the next quarter of an hour."
"Is there any reason why I should not join you in the voyage of discovery ?" asked Sir Bucephalus.
"Nothing would give me greater pleasure. Only you must be equipped like me-that is to say, with a respirator. I have just filled five or six. Virgil will fetch one of them."
' May we not come too ?" cried Gertrude and her uncle almost simultaneously.
"I don't think it would be wise," answered Norbert.
"We must husband our resources, and not do anything useless. Let Sir Bucephalus and myself make the first
survey. You shall go afterwards, if we find it quite safe and prudent."

This was agreed to, and the baronet hastened to equip himself for the expedition.
"I am fully as curious as you," he said to Norbert, " to ascertain how it comes about that our observatory is now in the moon ; that is," he added quickly, " if we are really in the moon."
"What!" cried Norbert. "You don't mean to say you are still in doubt about it. Your doubts will soon be laid to rest now. Come on, my dear fellow, let us go. We must look very much like two cocoa-sellers on the boulevards. But there is not much fear of our being laughed at here!"

At this moment Tyrrel hurried up to his master.
"Sir Bucephalus, are you going out without breakfasting ? Do pray take this chocolate and some biscuits, Sir Bucephalus!"
"One can't be angry long with such an individual," exclaimed Sir Bucephalus, pocketing the provisions. "He is positively stuffed with good intentions!"....

So saying, the two young men glided through the halfopened door, and were gone.

There was not much change apparently in the esplanade. They went through it quickly till they reached the zig-zag path down the mountain. Contrary to Norbert's expectation, there was nothing fresh to be seen here. The path wound as formerly, down the flank of the Peak, till it reached the bed of vitrified glass under the mountain. But instead of a vast plain stretching beyond, there was now a considerable space between the end of the path and the lower plain. And another strange thing! Instead of facing east as formerly, the path lay now towards the north, as shown both by the position of the sun, and by the little pocket compass Norbert had with him. In fine, it was clear that not only the summit of Tehbali, but the entire mountain had been forcibly transported by some irresistible power from one globe to the other. The heat was intense, owing to the almost vertical rays of the sun,
which looked much as it did when viewed from the earth, with the exception that the protuherances on the surface were now far more visible to the naked eye than they were even through the telescope in the observatories of Earth. This was a joyful discovery to Norbert, who was an ardent astronomical student. It was to be explained by the manifest extreme tenuity of the atmosphere, which accounted also for the appearance at mid-day of countless starry constellations. The atmosphere of earth is like a veil between our glasses and the stars; but the lunar atmosphere leaves free passage to the rays of light or of heat, and unlike the earth it lends no azure hue to the sky, which, viewed from the moon, is black as ink.

Not only did our two explorers find themselves in a furnace-like heat, but they also discovered that they were now of an extraordinary lightness. They scarcely felt their feet as they tripped along rather than walked. Every moment they were making extraordinary bounds, sometimes of four or five yards, whilst meaning only to step aside from some little obstacle, such as a stone or piece of rock. These gymnastics were so involuntary that each looked at his companion in astonishment. Norbert stared at seeing the baronet gambolling along in the most novel way, leaping lightly like a hare, and bounding aloft every now and then as if he were an indiarubber ball.
"There is something marvellous about this," he thought. . . . "He will break his neck if he goes on in that extravagant fashion!"

At this moment he himself made a slight backward movement to avoid a precipice, and was to his surprise taken six or seven yards up in the air, falling gently down again on the ground.

The baronet, his own gymnastic exercise scarcely over, looked at Norbert with an air of displeased surprise at such undignified pranks.
"I have it!" suddenly thought Norbert. "Gravity is playing us these tricks. It is six times less on the moon than on the earth. It follows that our muscular power is sixfold greater, and hence we have become veritable acrobats."

He could not resist the pleasure of communicating the interesting fact to the baronet, and untied his demi-mask for the purpose.
"Well, my dear fellow," said he, "do you at last believe that you are in the moon?"

To his great surprise, there was no reply. The baronet did not pay the least attention to him, but gave a tremendous leap over a little rjvulet that the rains had left in the road. Norbert thought at first from his silence and the expression of indifference on his countenance that Sir Bucephalus was sulking for some cause or other. But what had he done to offend him? He could not conceive what his offence had been.
"What an odd idea!" thought Norbert. "Such a strange time, too, to choose for the sulks. What can he be savage with me about? Perhaps he is angry because I laughed at his gambols. No matter, I shan't trouble my head about it!"

But in the midst of these reflections he suddenly went off into a fit of laughter-a fit of silent laughter though. He had just discovered that he had only articulated his words without pronouncing them. The voice was not audible, or, to speak more accurately, there was no voice or sound of any kind on the moon, because the tenuity of the atmosphere precluded all vibration.
"Poor old Bucephalus!... And I suspected him of childish sulking," thought Norbert. "He doesn't look happy, though. He has taken his mask off twice or thrice. Perhaps it was to speak to me! Perhaps he has asked me several questions without getting any reply; and maybe he is now wondering what is amiss on my side. How on earth am I to explain matters? There is nothing for it but to wait till we get back."

There was nothing to be done under such circumstances but to continue their silent observations of the strange geological conditions around them. They had now reached a depth of twelve hundred yards beneath the observatory, and yet this was not half the distance separating them from the plain. The zig-zag road ended in a gentle slope
which continued to the plain, and did not look difficult of descent, although there was no beaten track.

Nothing could be more striking than the contrast between the rock of Tehbali and those of the said slope. The soil of Tehbali was of a dull red hue, covered with yellow grass and various kinds of shrubs; that of the lower slope was bright green, interspersed with glistening mauve and grey streaks of colour, without the least trace of vegetation.

There were thus two perfectly distinct zones: the upper one, belonging to Tehbali ; the other that of a lunar mountain. Beneath, again, in a yet lower region, were a series of small craters, forming, as it were, a kind of rugged plain.

Instead of descending the slope, Norbert chose to skirt it horizontally for two or three miles round the base of the peak. He made a discovery thereby.
"No doubt about it," he thought. "It is clear now that the whole mountain of Tehbali was taken up and thrown on to the moon, where it alighted on its base. This seems rather odd at first sight. But given an explosion of subterranean forces, caused by the sudden backward recoil of the moon, it appears only natural that the Peak should have been uprooted, torn, like a tooth from its socket, out of the sandy soil that had been its bed. Once launched into space, the homogeneous nature of the rock would keep it all together, and by the force of the shock brought nearenough to the moon to be attracted by her (which is intelligible since our satellite almost touched the earth), the conical shape of the mountain made it inevitable that it should fall on its own base.
"It was, indeed, obliged to fall on its own base. There is no exception to the laws of gravity. The rule is invariably the same, whether it concerns a magnetic mountain weighing millions of tons, or only some cogged dice. Tehbali resembles the latter, inasmuch, as once launched into space, it was bound to fall on the heaviest side, that is, on its base. Now what was it that softened the shock of the fall to a certain extent? Two causes are evident.

One was the slight influence of gravity on the moon : hence our rock alighted as gently as a bird, just as I leap now with such perfect ease. The other softening element was this very mountain that caught us en route." . . .

Thus did Norbert reason to himself. There was one point still to clear up. Was the mountain a peak or a crater ? Every probability pointed to the latter hypothesis. First of all, there were only craters to be seen as far as the eye could reach. Then it was easy to see that a crater could hold the magnetic rock of Tehbali ; but there would have been a difficulty in the rock settling down atop of another peak.

Still skirting the base of Tehbali, the two explorers arrived at length on a kind of terrace, whence they had a much more extended view than from the other side of the mountain. They perceived that the lesser craters of the plain gradually diminished towards the west and south, till they reached a sandy, hollow region, whilst from the north to the east, on the contrary, they rose in tiers till they reached an elevated chain of mountains running in the same direction. This circumstance, together with the characteristic aspect of the chain, was like a ray of light to the young astronomer.

He turned round mechanically to communicate the result of his observations to Sir Bucephalus, but, suddenly remembering it was impossible to make himself heard, took out his memorandum book, and rapidly sketching the country round, handed it to the baronet with this explanatory note :-
"I think that we have alighted on the crater of Rheticus, and that this chain of mountains is that of the Lunar. Appenines. These sandy plains must be the Sea of Vapours, the Sea of Tranquillity, and the Sea of Serenity."

Having read this note, Sir Bucephalus returned the memorandum to Norbert, making vain efforts to speak. The young astronomer saw these attempts, and wrote again:-
"I am obliged to use a pencil, for there is no sound on the moon."
"Is that so ?" wrote the baronet in his turn. "I have spoken to you several times without a single word in reply."
"The effect of the moon!" replied Norbert. "Another strange thing. You see that block of stone near your right leg ? It is at least two cubic yards. Try to lift it, and you will see."

Sir Bucephalus looked incredulously at the enormous block, which two horses could scarcely have moved on the soil of the earth. He stooped down, however, to please his companion. To his inexpressible surprise, the rock moved easily under the slight pressure of his hand.

At the same instant Norbert took his flight, and passed over the baronet's head at a height of eight or ten yards, coming down again as gracefully as a bird.
"Effect of the moon!" he smiled.
But, although the baronet heard nothing, he was not going to be outdone. He took his flight, and rose so high that Norbert was piqued into a repetition of his own exploits, and so they went on for several minutes, each trying to emulate the other, in a series of acrobatic achievements.

At last the two young men sat down side by side and looked at each other with a perplexed expression, mingled on Norbert's side with one of amusement.
"I will explain these phenomena to you," began the young savant, again forgetting that he could not make the least sound.

Sir Bucephalus, seeing his lips move, turned the most attentive ear in hopes of hearing, but all in vain.
"I give it up!" gesticulated Norbert, shrugging his shoulders. "It would take too long to write it."

He tried to explain the situation to his friend by a succession of gestures. The baronet looked on in amazement while his companion leapt over enormous obstacles, lifted weights that looked colossal, and then, coming up to Sir Bucephalus, took hold of him, not round the body, but as if he had been a doll, by both hands, and throwing him up in the air, caught him as one catches a ball. . . .

The baronet did not much admire these liberties.
No sooner did Norbert pause in his acrobatic feats than his companion did the same to him, with all the while a mostseriousand offended air, which amused Norbert greatly.
"It is not without reason that madmen are called lunatics in England," thought the baronet. "Can it be possible that only a few hours' sojourn on the moon has had such an effect on a mind like Norbert's ? For it is evident that he has lost his senses, . . . and he is as strong as a bull with it all. . . . So am I; indeed, I have never seen myself in such good form as I am now. It must be ${ }^{\text {• }}$ owing to the muscular education of Eton. Something always remains of such a training, and it only requires opportunity to bring it forth. But I trust I am not going to lose my head like this poor fellow."

He had got so far in his reflections when Norbert seized him round the waist, and throwing him over his shoulder like a bundle of feathers, ran with all his might along the terrace formed by the lip of the crater.

The baronet, somewhat alarmed and very offended at this exploit, struggled with the energy of despair. Norbert would not leave go. He stopped only at the end of the terrace, and set down Sir Bucephalus, who was crimson with rage.
"I am surprised, sir," he tried to say.
But seeing that he was unheard, he stopped short. The extreme risibility of the situation suddenly overcame him, and his rage evaporating under Norbert's affectionate smile, Sir Bucephalus went off into a silent peal of laughter that shook his sides without producing any other effect.

## CHAPTER XXI.

## THE CRATER OF RHETICUS.

"The chief point now," said Norbert to himself, as he sat beside Sir Bucephalus on the edge of the terrace formed by the crater, "is to ascertain the condition of the isolating
base of our great artificial magnet! If, by good chance, it is intact, so much the better! We might then have some reasonable hope of seeing Earth again! Well! well! we shall soon see!" So saying, he got upon his feet, followed by the baronet, and they resumed their exploration of the crater, keeping always to the circular summit that was now capped by the Peak of Tehbali. A walk of a quarter of an hour or twenty minutes brought them to a point exactly opposite, but much lower than the observatory. On a sudden they perceived a wide opening in the side of the mountain.

On looking closer, Norbert saw at once that the opening was, in fact, an old cleft in the side of the crater, and that it was now closed in at the top, as by a ceiling, by the vitrified base of the mountain of Tehbali. He hailed the discovery as likely to settle the point that was now occupying his attention, and at once entered the V-shaped cavern, Sir Bucephalus closely following in his footsteps.
At first they could distinguish nothing, owing to the comparative obscurity, but when their eyes got accustomed to the twilight, they found themselves in an immense cavity,-none other, indeed, than the cavity of the crater of Rheticus. It was cup-shaped at the bottom, and covered over at the top by a solid arched vault.

In order to make sure of the fact, Norbert lit some matches he had in his pocket, and held them up as high as he could. The light reflected from the top proved conclusively that the roof was in very truth the vitrified glass base of the mountain of Tehbali that had thus capped the lunar crater. There was so little doubt about it that even the baronet was struck by it.
"Upon my word!" he cried, " the whole mountain is intact, and sits on the top of the crater just like a large lump of sugar!"

Marvellous to relate, Norbert heard this exclamation quite distinctly, notwithstanding that it had been uttered from behind a copper mask.

There was only one possible explanation of the phenomenon
" Turn off the tap of your respirator," said Norbert, setting the example. "We have as much air here as we want!"
"Hurrah!" shouted Sir Bucephalus. "I am very glad to give up my feeding-bottle ! but how do you account for the fact that we can only talk and breathe by fits and starts in this absurd country?"
"Quite easily," replied Norbert, laughing. "Don't you see that we are in an air cavern ?" Making a rapid mental calculation, he added: "This cavern is quite a thousand or twelve hundred yards in diameter, and almost as deep; this gives us a provision of several millions of inches of air! "
"Really! Well, I do call this a good find! It is worth more than a diamond mine! What a comfort it is, at last, to be able to draw a good breath!"
"Yes," answered Norbert. "But we must husband our riches. They will not be inexhaustible."
" Why on earth, or rather in the moon," said the baronet, " is this crater the sole emporium of breathable air ?"
"By the same reason that accounts for our presence here, and also confirms my theory of the matter," answered Norbert. "The air here is not proper to the moon. It is terrestrial air collected by the moon, when, like a ball rolling in flour, she rolled into our atmosphere. This crater had just filled with air when it was suddenly capped, that is to say, corked up, blocked by the rock of Tehbali. It is this modicum of earth's air that we are now breathing."
"In that case," said the baronet pensively, "we must indeed be sparing of the unexpected treasure!"
"Not only sparing of it, but we must prevent its escaping by the opening that gave us ingress! We had better go back to the observatory as quickly as possible for tools to build it up tight ; else the air will escape little by little!"

This wise advice was at once put in practice.
The two explorers resumed their masks, and were turning back to the opening, when Norbert proposed an amendment.
"There is not an instant to lose," he said, "for each minute costs us hundreds of gallons of air. Why need we
both go back ? One could fetch what we want whilst the other remains here and sets to work at once."
"That's true," replied Sir Bucephalus. "Do you go, then, my dear fellow, since you know exactly what is needed. But what can I do in your absence ?"
" You can gather together a number of large and mediumsized stones, wherewith to make a wall and close up the opening when I come back."
"Very well. There is no lack of stones here. You shall find a good heap on your return, I promise."

Satisfied with this assurance, Norbert bounded off to the observatory, and was there in a few minutes.

As soon as they all heard the news, every one wanted to join the expedition. The doctor, Virgil, Tyrrel, Fatima, and even Gertrude were all anxious to become assistant masons.
"I am quite tired," said Gertrude, " of being a useless member of society, and I demand my share of work with the rest!"

Tyrrel had spread out a splendid lunch for the explorers on their return. But it was settled to postpone the repast for another hour, as Norbert did not think it would take longer to close the opening.

He had already given his instructions to Virgil, who had hurried off to the store-room in search of a shovel, a trowel, sack of cement, and a barrel of water. Meanwhile every one prepared for the adventure by providing themselves with oxygen respirators, and Norbert warned his companions of the singular phenomena that awaited them outside.

Doctor Briet's countenance lengthened considerably when he heard that he was about to be condemned to absolute silence.

Gertrude took it all in her usual courageous way.
"What is that majestic planet that has appeared since your departure?" she asked, going to the window to point out to Norbert a large, pale, white crescent in the heavens, similar in appearance to the new moon when viewed from the earth, only four times as large.
"That is our country, the earth!" he replied.
"We shall have the pleasure at least of constantly seeing her, for she is the great time-piece of the lunar world, is always present in the heavens, and in this hemisphere she is visible all day and all night."
"The Earth!" said Gertrude, with a sigh. " 10 think that my poor darling father is there so far from us, exposed to all the horrors of a siege, and little dreaming that his daughter has been exiled to this place!"
"We shall rejoin him, rest assured of that!" said Norbert, deeply touched by her filial grief.
"Really! Do you believe that is possible ?" cried the young girl.
"l firmly hope it," he repliect.
She was already so accustomed to see all Norbert's assertions realized, that this assurance was an inexpressible comfort to her.
"To work then, at once !" she said. "Do not let us lose a minute, or neglect anything that might add to our chances of success!"

They went out on the esplanade, and for thic first few minutes there was some confusion in the ranks. Norbert had well warned them of the new conditions they might expect to find outside ; but, doubtless, the two servants had failed to take in all his explanations, for they were quite bewildered and upset. Their abnormal lightness was a great trouble to them. In fine, they conducted themselves as if seized with an acute nervous fever.

Virgil, wishing to look over the edge of the esplanade, was carried by his own impetus to a distance of forty yards at least.
"This will be my death !" he thought, as he flew through space. "Or, at all events, I shall be dreadfully hurt!" he continued, picking himself up most carefully when he had reached the ground. No such thing! He was not even bruised! As he turned round in amazement to measure the distance which he had traversed, a tolerably heavy mass came flying towards him. It was Tyrrel, falling off the esplanade in his turn, led by the force of example, probably. He fell a-top of Virgil!
"This individual will crush me!" thought the latter. But Tyrrel proved as light as a feather, and did him no harm whatever.

This experience taught them to moderate their movements in proportion to the work to be done. They now hastened to join the others, and were soon at the mouth of the cavern.

Here a painful surprise awaited them. The baronet was not there, although a large heap of stones attested the ardour with which he must have worked.

Norbert, thinking that he might have gone to get a few mouthfuls of fresh air in the crater, penetrated further in, calling him loudly.

The subterranean echoes alone replied.
Considerably alarmed, he lit several matches in succession, and began an exploration of the hole; but he had not gone ten paces before the uselessness of the proceeding came home to him. The hollow interior of the crater descended in a gentle slope, so that there was no fear of a dangerous fall, especially in the moon, where one might brave a descent of forty yards with impunity. On the other hand, moreover, Sir Bucephalus could not ha ve ventured on a useless exploration without a light.

It seemed, therefore, certain that he was not in the crater, and he must, in all probability, have been tempted to visit one of the neighbouring valleys.
"Sir Bucephalus is not there," said Norbert to Tyrrel, who had followed him anxiously. "You had better go and see if you can find him somewhere near. Meanwhile, we will commence work here, for there is not a minute to lose, and every instant's delay costs us much precious air."

Tyrrel obeyed, and the rest set to work vigorously.
Virgil had already deposited the water and cement, in a hole dug with the shovel, and mixing the cement, he now laid it on the wall that was rapidly rising under Norbert's hands. The doctor picked up the stones, and Gertrude and Fatima passed them on with many a hearty laugh at their own unaccustomed strength.
"Look," said Gertrude, as with one hand she held out a

"This will be my death !" he thought.
formidable-looking bit of a rock that would have weighed quite half a ton on the surface of the earth, "is this little stone of any use to you?"

The work proceeded as rapidly as if Titans, not ordinary mortals, were the builders.

In a few minutes the wall reached to the foot of Tehbali, and as the plaster solidified at once on account of the extreme dryness, their task was now completed.

Tyrrel came back just then, and signified by heart-broken gestures that he had not found the baronet.

After an instant's reflection, Norbert resolved to give the signal to return to the observatory.
"Perhaps," he thought, "Sir Bucephalus may have gone by another route, or he might be back soon." In any case, there was nothing to be gained by waiting, and if they were to embark on a regular search for him, it was necessary first to replenish the respirators. Besides, they could not talk it over until they got back to the observatory. They all started at once therefore.

There was no baronet to be seen in the drawing-room, as they had hoped, but there were traces of his having been there, and traces also of his appetite. The lunch left on the table was half gone. Cold meats, ham, hors-d'cuvre, wines, biscuits, and desserts, had all been laid under contribution. In truth, Sir Bucephalus could not have eaten all that had disappeared. He must have taken some of it away with him.
"I daresay," said the doctor, " that, finding something interesting at the foot of the mountain, he hurried back to it at once."

The explanation seemed plausible, and was accepted by the company in default of any other solution. They took their seats at table without further delay.
"Well, thank goodness that we have found a good supply of air in that cave," said the doctor, when he had somewhat satisfied his appetite. "But how will you manage to utilize it, my dear Mauny, now that, like another Eolus, you have succeeded in imprisoning it in your cavern ? Do you intend to send us there for change of air now and then, just as I
used to send my patients to Monte Carlo in those happy days when I did not practise on the Moon? Or do you mean to put the air into barrels and transport it here?"
"My plan is much simpler," answered Norbert. "You know that I began by boring a well down the middle of the mountain. If the bottom of the well is put into direct communication with the air reservoir, and a ventilator fitted to one of these windows, the whole observatory will have a sufficient supply."
"It is a good idea. But are you not afraid of being too generous with that precious air? Would it not be more prudent to restrict the supply to what is absolutely necessary, by passing it through an indiarubber or leaden tube furnished with a tap? The tube would have to be of a considerable length, though, and probably you have not got such a thing in store."
"We have all that we require," replied Norbert.
"We did not even leave our air behind!" said Gertrude, laughing. "If we were an army in retreat, we should deserve to be held up for the admiration of history."
"There has not been much to complain of hitherto!" said the doctor. "But, however, it is really painful, and might even become dangerous, not to be able to exchange one's thoughts outside this observatory! A bright idea occurred to me a little while ago. Why shouldn't we learn the deaf and dumb language?"
"Where should we find out its alphabet?" said Norbert. "I own that I never thought of providing that, and perhaps the omission was a mistake on my part."
"Perhaps we can make a substitute," rejoined the doctor. " I used to speak that tongue pretty well, once upon a time, and it is much easier than is generally supposed. One has only to remember the conventional finger signs that stand for the twenty-four letters of the alphabet; it is much easier for us than for poor children who have never had their sight or hearing, and do not know their letters. Then we have only to settle upon some short designation of ordinary objects and actions. I wager that in three days we shall
succeed in interchanging nearly all our ideas! See! This is how the letter A is shown."

The doctor proceeded thus to teach them all the other letters of the mute alphabet in succession. He took out his note-book and drew the signs on it in pencil. "I don't know how it is," he resumed, "but it is a curious fact that a little thing of this sort sometimes remains for years in a corner of the memory, much like a bundle of letters in an old drawer, and is ready for use when occasion offers. We must originate fresh signs if I have forgotten any, and there is no Académie here to lay down the law."

They all proved good pupils, and gesticulated in praiseworthy concert. Norbert, glancing at Virgil, even thought that he was trying to learn the mute language. The soldier servant stood on the threshold of the office, gesticulating wildly. But, on a sudden, his master saw that his signs were genuine attempts to attract notice. He was blinking his eyes, and making despairing gestures from behind Gertrude's chair, as if to intimate to his master that he had something serious and special to communicate to him in private.

Norbert gave him a look to show that he understood, and left the table soon after, pretending that he had to take the time of a chronometer in the Hall of Telescopes. Virgil followed him out.
"There are burglars here, sir," he whispered to his master.
"Burglars! What do you mean ?"
" I have just found the store-room quite demolished. The tinned goods, biscuits, sugar, coffee, everything is gone! We have been robbed of tons. Everything is upset, the drawers left open, and the cases empty on the floor. One would think a troop of Arabs must have been there. And it was all done whilst we were at the foot of the Peak. For I was the last to leave the store-room with a barrel of water, and I find it in this state on my return!"
"Might it not have been done by Sir Bucephalus ?"
"Sir Bucephalus? He couldn't have carried off all that is missing! It must have been the work of eight or ten
men, depend upon it. Besides, Sir Bucephalus has not been in, I swear, and he has not touched the lunch-table."
"What makes you think so ?"
"Everything. The way in which the ham is cut, the meats hacked about . . . so unlike the orderly, methodical habits of the English. . . . We servants notice these little matters. . . . And, then, he has a good appetite, certainly ; but he could not have devoured such a quantity! Besides, his dinner napkin is not unfolded, his plate is quite clean. -No, no, it was not him! Believe me, Sir Bucephalus has not been in. And I should be very surprised if he did come back!"
"But what do you infer?"
"I don't know. I can only swear that burglars have been here within the last hour, or half-hour ; and they have carried off not only an enormous quantity of provisions, but also . . ."
"What?"
"Arms and ammunition! My rifle, which stood behind the door of the store-room, and the doctor's rifle that was hanging up in the drawing-room. He has not noticed it's absence, but I did. . . ."
"You are right," said Norbert, struck by these irrefragable arguments. "But not a word of all this before Mademoiselle Kersain. . . ."
"You see that I have been careful, sir, not to speak before her," replied Virgil.
"It is true, and I don't know why I spoke so to you, who are the most clear-sighted of all of us. Thanks for your vigilance, my worthy fellow! . . ."

## CHAPTER XXII.

## ONLY CATALEPSY.

AFTER ascertaining the state of things in the store-room, and finding that Virgil had in no wise exaggerated, Norbert called Briet into the Hall of Telescopes, to take
counsel with him and his faithful servant. Who were these strange thieves, that they should pounce upon the provisions, and leave the baronet's splendid plate untouched ? That circumstance alone seemed to point to the probability of the theft having been committed by an animal, or by a troop of unknown animals, rather than by a human being. On the other hand, the disappearance of the firearms must have been the work of intelligent, though mischievous, beings. Anyhow, it was most important to find out the truth, and also to organize a search party for the baronet. As the expedition had its dangers, it was settled that Mademoiselle Kersain and Fatima should be left behind under the charge of Tyrrel. Only the doctor and Virgil, armed to the teeth, accompanied Norbert. The model valet was told of this decision, and strictly enjoined not to disquiet the ladies left to his protection, as they were not to know the reason of the sortie. He was, however, to lock the door, and to have loaded firearms at hand, and not admit any one without good cause. Having taken these precautions, our three explorers hastened to equip themselves for the adventure, filled their breech-loaders with explosive balls, and put on their respirators. Then they bid good-bye to Gertrude under pretext of going out to look for the baronet.
"Where shall we begin ?" asked the doctor.
"I am inclined to go first towards the Sea of Serenity," replied Norbert.
"The sea!" cried Fatima, clapping her hands. "Oh! how I should like to see it, and, above all, to bathe with little mistress, as at Suakim!"
"Don't be in such a hurry, Fatima," said Norbert. "There is no water in the sea of which I speak."
"No water, in a sea ?"
"No, my child : there is not a drop on the whole surface of the moon, nor even in its atmosphere. We should suffer terribly from thirst if we had not a good supply in store, which saves us, at least, that torment. As to the sea of which I speak, it is, like all the others in this world, simply a sandy plain."
"Then why call them seas?" asked Gertrude.
"Because the first astronomers who discovered them a hundred and fifty or two hundred years ago took them for seas, as in conformation they much resemble the probable appearance of the beds of our oceans, supposing the waters had dried up. But I will tell you more about it on our return, as I shall certainly take the opportunity of studying the question more closely than has yet been done."
"Well, go quickly in that case," said Gertrude, " or you will be overtaken by night ; for it must now be two or three o'clock in the afternoon. I can't tell exactly, because all our clocks and watches have stopped."
"There is no fear of night coming," said Norbert, laughing. "Unless I am very much out in my calculations, we can still look forward to something like 264 hours of daylight."
"Is it possible? are the days so long as that in the moon?"
"They last at least fourteen times twenty-four hours. There are only twelve days throughout the lunar year."
"And we are not to sleep during all that period ?" asked Fatima, in dismay.
"Nothing prevents our sleeping. In fact, we must make a point of having fixed hours for repose, on account of our terrestrial habits. We must sleep in the daytime, that is all."
"And will the nights, when they come, be equally long ?"
"Quite. During fourteen times twenty-four hours we shall only have the light of the stars and of the earth."
"How strange it will be!" cried Fatima.
"Not stranger than the long polar nights and days in the arctic regions of the terrestrial globe. But meanwhile we must proceed to our exploration. Come, doctor, let us start. Virgil, have you the maps, compass, barometers, and all necessaries ?"
"Yes, sir."
"Well, advance, then. Here we are dumb till our return."
" One word more," implored the doctor. "How will the barometer behave here ?"
"Just as it does on the earth, or nearly so. This is fortunate for us. You see the mercury stands at the height of 772 millimetres; we shall find it the same outside. This it is that enables us to keep our provision of air with comparative ease and to go about with impunity in the rarefied atmosphere of the moon."
"If it is so rarefied, how is it that the barometric tension is the same as that to which we are used ?"
"There is but one possible explanation: it is that the lunar atmosphere is much higher than that of the earth. Note that this exactly tallies with the lesser intensity of weight on the surface of this world, and explains how it is that the lunar atmosphere is invisible from the earth. All the facts fit in. But enough! Let us go now, once for all."

They went rapidly down the road and the slope of the great crater, and were soon in the plain strewn with smaller volcanoes. They crossed it without stopping, and, going towards the south-west, came before long to the edge of a vast sandy bed. It extended to the horizon, and, as the young astronomer had foreseen, was exactly like the Sahara Desert ; with the exception, however, that not a single oasis was visible, and the solar light was far more intense than in the African desert.

Had there been a single being, alive or dead, throughout this vast expanse, he would have been seen ten leagues off. But not the least vestige of animate or inanimate life disturbed the solitude. It was certain that the baronet could not be there.
"Let us go and look in the Apennines," wrote Norbert, passing his note-book to his companions.

The great chain of mountains stretched from north-west to west. It was composed of ranges of peaks, rising, according to terrestrial astronomers, to the height of three thousand yards above the Sea of Serenity. The travellers accomplished the first part of the ascent in less than an hour. As was to be expected, they had to leap over masses
of titanic rocks that rose one behind the other above a series of extinct craters. It was not very easy walking, despite the absence of weight, but the three travellers explored it all thoroughly, climbing manfully terrace after terrace, until at length they stood on a summit whence they commanded a view of both slopes quite sixty leagues in extent. The barometer indicated an altitude of 10,000 feet.

Vainly did they sweep the immense circle with their glasses. The solitude was as complete as at the bottom of the dried-up lunar ocean.

Norbert had just lowered his spy-glass, and was about to give the signal for return, when his attention was suddenly caught by a pyramid-shaped rock surmounting the height on which he stood. He went up to it. It had evidently been placed there by a human hand. It was rough, but was wedged carefully in, and propped up with stones to prevent it rocking. And to obviate all doubt as to its origin, the following Latin inscription, done with a knife, was to be seen on one side :-

## SIR BUCEPHALUS COGHILL, BART. <br> Primus inter mortales, <br> > Lunce montes Apenninos adiit MDCCCLXXXIV. <br> <br> Lunce montes Apenninos adiit <br> <br> Lunce montes Apenninos adiit MDCCCLXXXIV.

 MDCCCLXXXIV.}which signifies, "Sir Bucephalus Coghill, Baronet, was the first among mortals to climb the Apennine Mountains in the Moon."
"Well, to be sure !" said Norbert, laughing, as he pointed out the inscription. "It was to write his name here, then, that the baronet gave us all the slip. We shall find him safe and sound, depend upon it, when we return. . . . Who would have suspected him of such a freak of vanity ?"

With their minds at rest now concerning Sir Bucephalus, the three explorers set off homeward down a new road, that appeared from their high point of view to be a short cut. It was a kind of deep gorge, that led straight to the crater of Rheticus, and was probably the bed of some ancient torrent that had forced its way to the sea. It was
shady and cool, and, best of all, they could actually hear the sound of their own footsteps, which showed that they must have hit upon a strata of air.

Norbert hastened to verify the fact by taking off his oxygen respirator. But he had to put it on again quickly. The floating modicum of air was not of sufficient density to suffice for animal life. On the other hand, there was no trace here, more than elsewhere, of vegetable existence. The strata of air was probably a remnant of the earth's atmosphere that had got imprisoned in these depths. So reasoned Norbert.

His hypothesis was still further confirmed by finding the fragments of a glass foundry, which had evidently fallen from the base of Tehbali into the dried-up bed of the torrent.

The ancient torrent skirted the base of Rheticus, and consequently that also of Tehbali, and brought them back to the observatory on the opposite side from that by which they had left it. They seized this opportunity of inspecting the condition of that part of the Peak. Going along the road that ran past the tomb of the dwarf of Rhadameh, a most unexpected sight met their eyes.

The stone closing the tomb had fallen down, and the corpse lay exposed to view in the hollow of the rock where it had been deposited by the black guard.

Norbert and Virgil instinctively turned away from the sight, and began to lift up the stone in order to replace it. But the doctor went up to the body and examined it with a scientific curiosity. All at once he stooped, took the dead man's hand, and looked intently at a red patch on it that appeared to have been the effect of the sun's heat.

Turning back to his companion, and seeing that he was evidently surprised, the doctor wrote on a page of his notebook:
" A corpse burnt by the sun! Such a thing was never yet seen! It is too preposterous, even in the Moon!"

Norbert read this with the greatest interest. He was well aware of the physiological truth that there is no more
certain sign of death than the fact that the skin is insensible to burning.

The doctor, as if determined to get to the bottom of the mystery, took out his stethoscope and put it to the dead man's chest.

Alas! He suddenly bethought himself that there was no sound on the Moon, and therefore the absence of all noise in the heart was no proof. . . . So he hastened to uncover the wizened little wrist, and felt it with the palm of his own hand.

He was not mistaken. There was a very feeble pulsation, scarcely perceptible, but still unmistakable.

Before Norbert and Virgil, who stood by, lost in amazement, could make out what the doctor was about, the latter caught up the dwarf as if he had been a baby six months old, and ran off with him to the observatory.

They followed as rapidly as they could.
The doctor passed quickly through the Hall of Motors, to the horror of Mademoiselle Kersain, Fatima, and Tyrrel, and, rushing to his room, laid the dwarf on his own bed ; and he was now actively engaged in scrubbing him vigorously from head to foot with a clothes-brush. At the same time he inflated the lungs of the quasi-corpse by blowing down a silver tube which he had taken out of his surgical case and inserted in Kaddour's mouth, having first, with his pincers, pulled forward the singularly shrivelled tongue.

Thanks to these heroic measures, Norbert saw the dwarf slowly revive in the doctor's hands. His breathing became stronger, and he twisted and turned, coughed and sneezed under the brisk manipulation of the brush, which left him red as a boiled lobster. At last he opened his eyes, and faintly murmured in French,
"Something to drink."
"Something to drink! He wants his morning glass!" cried the doctor, who was almost as ruddy as his novel client. "You may give us all a glass of old wine. We have not stolen it!"

Norbert wondered if he was in a dream. Yet there was
no room for doubt about it. There before his very eyes was the dwarf of Rhadameh, who had been buried fiftecn days back by the black guard, now all alive, speaking, breathing like any one else! It was preposterous, even on the Moon! Had our satellite, then, perchance the power of giving new life to earthly organisms? He really did not know what to make of it.

The doctor was too busy to be spoken to. After he had well rubbed his patient, he made him breathe pure oxygen, and poured half a glass of old wine down his throat. Exhausted with his hard work, the worthy man then swallowed a bumper himself, and wiped his forehead with a selfsatisfied air.
"At last!" cried Norbert, no longer able to suppress his impatience. "Will you explain this mystery ?"
"Explain it! Nothing simpler," said the doctor, laughing. This is a case of catalepsy, and, moreover, of voluntary catalepsy. I have long known that certain Indian jugglers and fakirs could do it: but I have never before had on opportunity of witnessing the phenomena. I am very glad to have seen it under such favourable auspices. You are witness that the fellow bore all the appearance of death, and was buried for-how long? At least six weeks ?"
"Thirteen days, unless I mistake."
"That is less than the fakir of Ceylon mentioned by Doctor Sierk as having been buried for six months. But we must be fair ; we disturbed this gentleman ; perhaps he was quite prepared to remain six years where we found him!"
"Six months or six days is much the same," said Norbert, "for the phenomena is as extraordinary in the one case as the other! How is it accounted for ?"
"By a most simple process of progression. These Indian fakirs and jugglers begin by accustoming themselves to live with the minimum of vital force, through their habit of remaining motionless for long periods of time. They practise keeping in their respiration, they live in boxes that are more or less hermetically sealed, first for hours, then for days; and finally, for weeks and months. More than
that, they manage to fill their stomach as if it were a storeroom, with atmospheric air that they can afterwards pass into their lungs by minute doses at a time. To effect this, the string of their tongue is cut, so that they can turn it back and obstruct the glottis, and open or close their windpipe at will. In fine, they know how to hypnotize themselves by looking fixedly at the top of their nose ; and by contracting the thoracic muscles, they can so stop the movement of the heart that it is imperceptible under auscultation. They also have poisons in their possession that are unknown to the European pharmacy, and that can produce all the aforesaid effects instantaneously. You see how easily all these combined agents can simulate an appearance of death, and enable these jugglers, who are really artists in their own way, to have themselves buried for long periods of time, during which they live, or rather vegetate, in the tomb, until their friends come and resuscitate them.
"In the case seen by Dr. Sierk, the pretended corpse was put in the ground and covered with soil a yard in height. This soil was sown with maize; and when the maize ripened and was reaped, that is to say, after six whole months, the body was exhumed and revivified."

Norbert listened to these explanations with deep interest, but his interest was nothing compared to that of Kaddour.

He was quite himself again, and was now taking in, with wide-open eyes and ears, every word of the doctor.

The latter at last perceived this, and dropped the subject for the present, reserving it for the drawing-room.
"Well, my boy," he said, patting the dwarf on the head affectionately and professionally, "we are certainly much better? But there must be no more of these pranks, because they would not answer nor take us in now! Virgil will give you a cup of soup presently, with a biscuit and half a glass of claret. After that you must take a nap, and wake up quite well."

Really, to hear the doctor speak, one would have thought that he was addressing the most virtuous and charming patient, instead of a wicked deformity who
rad barely escaped a well-merited capital sentence by feigning to poison himself. But such is the strength of the medical sense of what is fitting in the exercise of the profession, that every consideration of difference of status or circumstance is lost in their single-minded care for the patient, and rich or poor, noble or peasant, honest man or criminal, are all one in their eyes so long as he needs a doctor.

And such is the strength of example, that every one in the observatory acted likewise. They all forgot the crimes of Kaddour, and only looked upon him first as a singular phenomenon, then, after some hours had passed by, as a brother in misfortune, another exile from Earth.

Every one hastened to show him little attentions as soon as he was able to rise and go into the Hall of Telescopes, where a hammock was slung for his use.

Norbert brought him his own linen. Gertrude offered him a dish prepared by herself. Fatima offered to play draughts with him if he chose. Virgil had been devoted to him for the last six hours past. Tyrrel alone held aloof, and appeared to disapprove in petto of all these attentions. The fact was, he would not compromise himself until he knew what Sir Bucephalus thought. He was quite willing to be gracious to Kaddour if his master approved, but in his absence he was neutral.

They began to be seriously uneasy at the prolonged absence of the baronet, although they tried to take comfort from the discovery of the inscription on the Apennines.

The dwarf was morosely silent at first, and did not apparently appreciate their kindness. The doctor alone seemed to find grace in his eyes, and he was glad to hear his voice. But when he saw that the genial sympathy was real, and not affected-when he understood that his crimes were forgiven, and that he was treated like a friend, and his place set apart for him even at table-he was overcome at last by so much generosity, and on a sudden, one day, he burst into tears.

This crisis proved the signal for a complete change in his manners and conduct.

He did not speak more, but his old expression of morose defiance gave place to one of sadness, of almost gentleness. It was evident that a chord had been touched in that hard heart.

Hatred seemed to be now a burden to him, and from time to time his eyes shone with a kind of pained surprise.
"What!" he seemed to say, "there are really noble hearts to be found elsewhere than in the pages of fiction! The world is not, then, made up solely of victor and vanquished, tyrant and victim ? There are beings who live peaceably, and who do good for its own sake, disdaining to revenge themselves, and are as far removed from cowardice as from brutal despotism! . . ."

Then, remembering his own heinous offences, and comparing the conduct of his benefactors with what his own would have been in like case, he was overwhelmed with remorse and confusion.

With sympathetic intuition Norbert and Gertrude guessed that there was a heart-breaking history of grief and nameless despair hid beneath that storm-tossed countenance. But, with the delicacy of refined natures, they forbore all expression of curiosity, and redoubled their kindness to the unfortunate dwarf, carefully abstaining from the least allusion to the past. Yet they could not but marvel at the strange juxtaposition of giant passions in the deformed little body, of mysterious and hidden lore and utter barbarism, of apparent subjection to the Mogaddem of Rhadameh, and the real possession of the strange, weird powers of which they had been witness. But Kaddour chose to keep the secret of his life; that was a sufficient reason that they should not seek to discover it.

## CHAPTER XXIII.

## HISTORY OF KADDOUR.

Little by little the dwarf of Rhadameh expanded in this atmosphere of benevolence. But no one could draw a word
out of him except Doctor Briet, who rallied him about his feats of magic.

Then Kaddour, smiling faintly, would condescend to answer in the same strain, as if speaking to another soothsayer. On these occasions he often evinced a marvellous amount of general knowledge. They were all much struck by this fact.
"The fellow," said Doctor Briet, "is a perfect mine of science, a veritable encyclopædia. Physics and chemistry, physiology, mathematics, natural history, medicines, living languages, military art-nothing comes amiss to him, and he seems to have gone to the bottom of everything. I am always wondering where the deuce he got it all, and I long to ask him ; but something or other stops me."
"That is only natural," said Gertrude, "you feel that, after saving the life of the poor wretch, it would not become you to ask for his history in return, as it were."
"That's it! On my word, I do think it is that! But," he added, laughing, "it is not that only: I have a vague presentiment that I might be regaled with a perfect yarn, did I venture to ask."

Perhaps the doctor was right on this point. Anyhow, it is certain that, notwithstanding the very real change that had come over the dwarf, he was still out of harmony somewhere with his hosts. There seemed to be a load upon his mind, preventing him from being at his ease.

A fortunate circumstance soon furnished the clue, however. Talking before Kaddour at table, about some iniquitous proceeding of Costerus Wagner, Peter Gryphins, and Ignaz Vogel, Norbert said with more frankness than moderation,-
"What a blessing it is, in the midst of our misfortunes, not to have those scoundrels with us!"

At these words Kaddour's eyes flamed. He hesitated an instant, then, turning to Norbert, he said courageously and courteously,-
" Will you allow me to ask you a question, sir ? It was the first time he had ever so spoken. They all looked up.
" Most willingly," answered Norbert. "Pray ask."
"If it is not indiscreet on my part," pursued Kaddour, "I would know whether the parties you have just mentioned are your friends?"
"What persons ? Wagner, Gryphins, and Vogel ?"
" Especially the two last named," said Kaddour.
"Certainly not, they are by no means my friends !"
"But I thought," stammered Kaddour, who seemed strangely upset-" I thought that they were your partners."
"To a certain extent they were my partners indeed, but they are, above all things, my sworn enemies, who have omitted nothing that lay in their power to ruin my enterprise!"
"Is it possible," cried Kaddour, rising from his seat. "Ah!" he continued, "I understand it all now. It was they who sent an Arab to denounce your project to the Mogaddem! What a blind fool I was not to see it before! But," added the dwarf, suddenly stopping short and turning two flaming eyes on Norbert, "but do you not know all about these men whom you permitted to follow you to the Soudan?"
"I know nothing about them," said Norbert. "They are chance associates whom circumstances threw in my way: or rather, I may term them just mere accountants, who are perfect strangers otherwise to me. I neither know nor care whence they came."
"But it shall be my care to tell you who they are!" cried Kaddour, whose emotion almost choked him. "It matters very much to me, for herein lies my sole excuse for the evil turns I have played you, and for the evil I would have done! This has been the only check to my deep gratitude for all your goodness! But how could I guess the truth! How could I make any distinctions in my hatred of you all ? How, above all, can I express my joy at finding that they are not your friends, for had they been so, I could not have been your friend. notwithstanding all you had done for me."

The poor dwarf here wept like a child, as he pressed Norbert's outstretched hand.
"You know Gryphins and Vogel, then ?" asked the doctor.
"Do I know them ?" cried Kaddour excitedly. "Do I know the two villains who stole from me my share of earthly happiness, and almost destroyed my very form of man? Do I know the butchers who for fifteen years tortured me in the most dreadful manner, and made me the laughing-stock of the world ? Yes, indeed, I know them only too well! I hate them, I execrate them to such a point that I would give anything in the world to have them here, were it only for one minute, to pay them off for all they made me suffer!"

There was such a tone of diabolical rage, and also of justice in these words, that it was impossible to listen to them without shuddering. Yet none of his hearers thought of remonstrating. His grotesque exterior notwithstanding, Kaddour inspired more respect even than compassion. This was the general impression that had been produced, indeed, on all who were brought into contact with him, and our travellers were no exception to the rule now. The common herd had seen in him a supernatural being on account of his pretended powers, and more enlightened witnesses could not but acknowledge a superior intelligence in him, even whilst they condemned his charlatanism. So now that he had lifted the veil from his life, and had given them a glimpse of its trials, the halo of suffering lent majesty even to his deformed personality, and he riveted the rapt attention of his hearers whilst all the details of the strange record were unfolded to them.

For a moment Kaddour was silent with emotion. Then he resumed,-
"I do not suppose that it would interest you to hear the history of my life. You would only pity me for my fearful wrongs, and pity is as abhorrent to me as contempt."

They all hastened to assure him of their deep sympathy with his sufferings, on the contrary; and the doctor especially had the happy idea of laying stress upon his own scientific curiosity. This had the desired effect on Kaddour, who thus proceeded,-
"You will, perhaps, be somewhat surprised to learn that we are compatriots. Not that I have any decided proofs
to give on the point, for I have no civil status any more than I have a human shape. They call me Kaddour. I have a vague recollection of having been called Charles when I was quite little. I have never known my family name, for parents, country, home (however humble that may have been), were all stolen from me at once, at the outset of my miserable life.
"I have a conviction, however, that I must have been born in France; from various little incidents and words caught up here and there, and long pondered in secret, and from the fact that the French language came naturally to me. It has been a joy to me to think myself French, for I could not have borne the thought of being of the same nationality as my tormentors.
"I must have been two or three years old when they carried me off. It seems to me that my parents must have dwelt in a sunny village and have been vine cultivators, for whenever I have seen a vine it has seemed familiar to me. I think, then, that my family must have been natives either of Burgundy, Bordeaux, or Languedoc.
"One day a travelling circus settled down near us. I had been taken to see one of the representations, and from that time my head was filled with the images of clowns, jockeys, horses, and performing dogs. Led by curiosity, I crept on hands and knees under the canvas covering of the tent one day, in order to see my paradise again. I had been there but a few minutes, gazing with the utmost attention at the acrobats as they packed up their belongings in readiness to depart, when suddenly a great hand was clapped before my mouth, I was caught up, carried off, and thrown into a dark corner. After a good cry I must have fallen asleep. When I awoke I was in one of the moving caravans I had so often admired, and was destined, henceforward, to see more than enough of. I was now a member of the wandering troop, and for fifteen years I was to be its show monster.
"It may, perhaps, surprise you that I should have such a vivid recollection of some things, whilst others are so vague. I give them to you for what they are worth, for I am not a
all certain as to my age at that time, only I look back to these first impressions as to the only bright spot in life. All its cruel tortures have never been able to efface the memory of our sunny little garden, of my mother's kisses, and of my father's cheery laugh."

The dwarf paused a moment to ponder over memory's pictures. His sad story had brought tears into the eyes of the others.

In a few minutes Kaddour resumed :-
"Peter Gryphins and Ignaz Vogel were the proprietors and directors of the travelling circus. They had a wretched dwarf with them as chief attraction. He fell ill. Fearing lest he might die and thus impoverish them, the scoundrels conceived the diabolical notion of manufacturing a dwarf. I was condemned never to grow. They encased me in a steel corslet that entirely arrested the development of my body: my limbs were tightly bound in linen bands, as the Chinese women bind their feet. The invention was a success, as you may see. But it was not effected without a prodigious outlay of time, and many brutal blows and bitter tears. What did these human tigers care? At the end of a few years I was exhibited in public under the title of General Midgy, ex-Commander-in-Chief of the Myrmidons of the Sultan of Batavia.
"I will pass over the humiliations, the insults and sufferings of all kinds that were my daily lot. Yet never can I forget them! They are too deeply engraved on my memory ever to be effaced. We traversed many countries. I was exhibited in high latitudes and in low latitudes, for the diversion of the loungers of every nation ; and I learnt to hate humanity in every language. The two scoundrels who had deformed my body into a monstrosity took large sums for a considerable time, whilst I, far from sharing in the profits, was kept in strict captivity and restraint.
"At length the public curiosity began to wane, the profits lessened. One day I learnt that I had been sold to the Viceroy of Egypt, who gave me to his children, just as he would have given them a pony or a clock-work carriage. From that time forward I never saw the infamous authors
of my misery until one day when on the Peak of Tehbali I met them face to face in this very hall. Long years of vicissitude had gone by. But I need not tell you that my hatred and thirst for vengeance had but grown more intense day by day.
"Living in the palace as if I had been some curious animal, I became the butt of these ill-conditioned cubs. It was far more humiliating to me than to be ill-treated by men. I may well say I was the butt : for an old barbarous custom of royal houses was revived in my person. Whenever these young savages had deserved a flogging it was inflicted on me. But, however, I had been well accustomed to blows. There was one consolation in the palace-I had the opportunity of acquiring learning. The Khedive, who was an intelligent man himself, spared nothing for the education of his children. They had the best masters in Europe. I was present at the lessons, and listened attentively, whilst they yawned. In this way I learnt history, the natural and physical sciences, mathematics, and the philosophy of languages. I was careful not to let it be perceived that I treasured up the store of learning, lest I might be banished from the study-room. It was delightful to feel that the Khedive himself was providing me with the weapons wherewith one day I vowed to wipe out this humiliating bondage.
"My hatred grew in proportion with my knowledge. I would be revenged, not only on the direct authors of my misery, but on all who were in any way connected with them. I loathed the whole human race. I had daydreams of crushing them all under my feet one day, when science and the strength that comes with knowledge should far outweigh and overshadow the accident of my deformed body!
"Just when I had learnt everything that my masters had to teach me, Arabi Pasha planned his revolt. I was one of the first to find it out, and to help him; or, rather, I may say that he was a puppet in my hands. But he was bought over by the English; we were betrayed, and Arabi was exiled to Ceylon, whither I accompanied him.
"There I enlarged my sphere of action. The revolt had
taught me military tactics. Some fakirs near the Point de Galles initiated me into secrets that would be all-powerful over Eastern imaginations. Then it was"that I determined to make Mussulman fanaticism-which was even then rampant throughout the Upper Nile-the lever and instrument of my future power. I escaped from Ceylon, and came to Suakim, where I commenced my new career by ingratiating myself with the Mogaddem of Rhadameh, and, for my own ends, doing all in my power to increase his influence. The Mahdi was now daily growing in prestige. I turned my eyes to him, therefore, feeling sure that he would be easily dazzled by my occult powers, and would be a mere tool in my hands. It was then that I had occasion to come to Tehbali, and there found Gryphins and Vogel. This chance meeting changed the course of my plans. I still intended to conquer the Soudan and Egypt, and by their means the whole Mussulman world, in order to let it loose upon Europe ; but, first of all, I wished to be revenged on my tormentors by striking down at once both themselves and what I conceived to be their enterprise. That was why I dogged your footsteps, and had you watched, that I might seize the first favourable opportunity. You know all the rest-how I became your prisoner by a complete turning of the tables, and escaped death only by feigning it. I do not regret my failure, nor the downfall of my schemes. I have learnt through misfortune what I did not know before-that there do exist noble human beings who can repay injuries with benefits. I do not even regret being a castaway on the moon, since I am with you. I am only sorry that the real authors of my misery and crimes are not here also, in order that I might settle up my account with them."
"Perhaps you may find them again some day on the Earth!" said Norbert, laughing, in order to make a diversion from the melancholy mood the sad recital had evoked. "We have no reason to conclude that the catastrophe was fatal to those gentlemen, the controlling commissioners; and you do not suppose that we intend to remain here until the consummation of all things?"
"Yes, let us talk about going!" said the doctor, divining Norbert's intention. "Do you seriously think it will ever be possible?"
"I haven't the least doubt about it," replied the young astronomer, "since we have had the good luck to carry off with us all that is necessary. We have only to put our solar-heat condensers into working order again (some of them having been injured by the shock), and to touch up some important organs of the electric mechanism."
"Then why not do it at once ?" cried Gertrude, rather excitedly.
"Are you so bored, then, on the moon already ?" asked Norbert.
"No, certainly not, I am not bored at all, and I would not change places with any one. But I think I should have some right to complain if it were a question of ending my days here, or of not seeing my dear father for a long while to come, or perhaps never."
"As for me," said Norbert, "I must say I would willingly spend a year or two here, if it were only to enrich science with some fresh data. But comfort yourself, Mademoiselle. It is an impossibility. We should not have sufficient air to last the time. I hope you will not mind staying through the lunar night which is at hand?"
"It is rather a gloomy prospect to think of spending a night of fourteen times twenty-four hours! But it cannot be helped. We must all do what our astronomer tells us, since our return to Earth at all depends on him!"
"That's right. Be sure I shall not prolong our sojourn a day longer than can be helped! It will take fifteen days to put all the machines in working order. Meanwhile, the night will be upon us, and the solar-heat condensers cannot work until the sun comes back. I have made very close calculations on the point. We have just enough air to last that time, on one condition, however: that it be not wasted, and, especially, we must be very particular not to have any fire of any kind whatever! I say this for the benefit of certain smokers, who burn up at least twenty cubic yards of air for the pleasure of blowing a little smoke out of
their nostrils!" added Norbert, looking at Tyrrel and Virgil.

The two culprits hung down their heads, and promised reform. They had, probably, not known that a pipe could cost so much.

Tyrrel hid his confusion by bustling about his business at the dining-table, and slunk off to his own kitchen with a pile of plates under his arm.

Immediately afterwards a tremendous crash of broken crockery was heard, and the unlucky man reappeared, pale and trembling, almost fainting.
"A thief!" he stammered. "A thief, who escaped out of the window when he saw me!"

## CHAPTER XXIV.

## COMPANIONS IN MISFORTUNE.

Norbert, Virgil, the doctor, and Kaddour hastened to the store-room.

No one was there, and the window was closed. But that might have been owing to the draught that blew from within whenever it was open.
"What was your thief like ?" asked the somewhat incredulous doctor.
"I only saw his back," replied Tyrrel, "and the back looked as if its owner wore a respirator; but it was like an ordinary man's back."
"Uncommonly likely, forsooth !" muttered the doctor. "An ordinary man in the Moon! You are dreaming, Tyrrel! Have you, perchance, been too attentive to the bottle of port?"
"Oh, sir!" said the model valet, "I have not had a drop this morning-I mean since we rose; for, in this wretched country, one never knows whether it be morning or evening !"
"In fine, you are quite sure you saw some one escape by the window ?" asked Norbert.
"Most certain : I am ready to sign an affidavit of the fact before a solicitor !" said Tyrrel, majestically.
"We will spare you that trouble, seeing that solicitors are not common here. But we must sift this matter to the bottom. Two of you come with me, whilst the others keep guard over the observatory."

Virgil and Kaddour begged to be permitted to accompany him, and the doctor and Tyrrel were left in the Hall of Motors. Having provided themselves with firearms, and donned their respirators, the three settled to follow the route taken by the thief, and therefore went out by the window.

It must be remembered that this window gave access to the turning to the right, that branched off the circular passage, and it looked on the buildings that had done duty successively as the lodging of the controlling commissioners and the prison of Kaddour. This building had no direct communication with the interior of the observatory, and hence it had been overlooked lately. Norbert suddenly remembered, when he looked at it, that it must contain a small supply of air; and as such a commodity was in no wise to be despised, he went straight to the door.

Just as he touched it, a shot was fired through a circular opening that suddenly appeared in the door; it burnt his hair without doing him any further injury. The ball lodged in the wall, and chipped several splinters off it.
"The enemy is there!" said Norbert to his companion, as he pressed up close against the wall, signing to them to do the same.

The precaution was not useless. Two more shots succeeded the first.

Virgil would not wait any longer : he threw himself on the door and tried to burst it open. But it was locked, and perhaps barricaded on the inside. It was impossible to break it open.
"There is only one thing to be done," he said, in a low
voice. "Let us slip behind the outer wall, and, getting on the top, fire at the windows."

The advice was too good not to be followed. In less than three minutes, the three besiegers had climbed up the outer wall by the slope. They lay down on their faces on the dry grass, and opened a well-sustained fire from their breech-loaders. The windows and wood-work were shivered to pieces; but no one replied.
"They are watching for us to uncover, that they may take aim at us!" said the war-experienced Virgil. "But we know a trick worth two of that, my fine fellows! You shall uncover first!" And his balls, directed with unerring precision, searched the inside of the lodge in every direction.

Seeing that no appreciable effect was produced, Norbert ordered them to fire on the door. It flew into pieces at the third shot.
"To the breach !" shouted Norbert, sliding down the slope to the door, Virgil and Kaddour with him.

There was no one! The besieged had vanished. Doubtless, they must have taken refuge in the adjoining room. Norbert fired, therefore, at the second door.
"If they are ordinary men, they must capitulate for want of air," said the young astronomer.

This opinion was corroborated by the instant appearance of a white handkerchief, suspended by a bayonet, through the second breach. Even in the Moon, a white handkerchief is the signal for a truce.
"Stop firing, Virgil, and hoist your handkerchief!" Virgil obeyed.
The door then opened, and on its threshold stood the last person in the world whom they expected to see-Sir Bucephalus Coghill!

Thin, pale, and tottering, he was but the shadow of himself. But it was he, without a doubt.
"It is you, then, who greet us with a volley?" asked Norbert, intensely surprised.

The baronet sadly bowed his head, without a word. Another voice answered for him, and this voice was strangely like that of Costerus Wagner !
"We ask to treat!" it said, without the owner of the voice appearing. He was probably sheltering himself behind the baronet.
"Who are you ?"
"You know us well," replied the voice. "We are Costerus Wagner, Peter Gryphins, and Ignaz Vogel."

The dwarf of Rhadameh here suddenly gave vent to a ery of joy that resembled a roar.
"How the deuce happens it that you are there, and why did you fire upon us ?" asked Norbert, lost in amazement.
"It does not much matter," replied the voice. "It will all be explained. But time presses, and we shall soon be without any air."
"Surrender, in that case!"
"Not without conditions."
"What conditions do you expect?"
"Our lives, air, and provisions."
"You shall have your lives," replied Norbert. "But air and rations are another point. They are too precious here to be wasted on three rascals like yourselves."
"Then our prisoner shall suffer for it," savagely replied the voice.
"What prisoner ?"
"Sir Bucephalus Coghill."
"Is that true ?" asked Norbert of the baronet.
His unhappy friend nodded his head. It needed nothing more to decide Norbert.
"Listen," he said, "to the only conditions I will grant. You shall have your lives, air, and rations; but you shall remain prisoners in the quarters assigned to you, and you must work for the common welfare, under my directions."
"Agreed!" said three eager voices, which were unmistakably those of Costerus Wagner, Peter Gryphins, and Ignaz Vogel.
" Well, then, throw down your arms and stand forward : you have my word!"

At that moment something cold touched his hand, and, looking round, he saw Kaddour on his knees, kissing it.
"Oh, Monsieur Mauny, give them to me!" said hc beseechingly.
"What do you want me to give you ?"
"Give me these wretches, that I may at last punish them as they deserve!"
"I should be most happy to hand them over to you," answered Norbert, laughing; "but I have passed my word to them, and I cannot withdraw it. I must seriously beg you to respect them," he added gravely, as he noted the ferocious look in the dwarf's eyes.

The three ex-commissioners did indeed present a most miserable aspect. They were emaciated, haggard-looking, and dirty. What else could be expected, indeed, when they had been without water for several days, and shut up in a confined space, with very little air to breathe ?

They were as abject now as heretofore they had been arrogant. The firearms in their possession proved to be those that had been missed from the observatory the first day the castaways had sallied forth to reconnoitre.

Norbert would not speak to them himself, but commissioned Virgil to see to their wants, and carried off the poor baronet to the drawing-room. He was soon restored by a few puffs of pure oxygen, a bath prepared by Tyrrel, and a glass of sherry. He then related his adventures, and explained the presence on the Moon of the three rogues.
"When you left me at the opening of the crater," he said, addressing himself to Norbert, "I soon grew tired of picking up stones, and thought how that the work would be done in five minutes when help came. The sight of the Apennines on the right was very tempting. I longed to climb them, and have something to tell at the Travellers' Club when I return to London, if I ever return! I yielded to the strong temptation, and in about an hour's time I had climbed the nearest peak, erected a little commemorative obelisk at the top, and descended the dried-up bed of the torrent into the plain. I was then quietly returning up Tebhali, when suddenly three shadows bounded from behind a big rock, threw me down, and seized my box of oxygen! By good fortune there was just a little breathable
air in the gorge at the bottom of the deep valley. I don't know where the air came from, but there it was, and it kept me alive, as until then it had kept the three rogues alive. It appears that the glass foundry, which was their prison at the bottom of the peak, was carried off with us, and fell into this gorge, where indeed I saw the broken pieces of glass."
"So did we," said Norbert, " when we were searching for you."
"You saw them too, did you? Well, Costerus Wagner, who is more knave than fool, understood the position at once, aided thereto by the fact that he could not breathe outside the valley. The villains had no provisions. They saw the observatory in the distance, and knew that we were there, but they could not traverse the intervening space owing to their want of oxygen. In this juncture they suddenly perceived me climbing up the Apennines, and conceived the idea of awaiting my return, to pounce at once upon me and upon my box of oxygen. Equipped with my respirator, Wagner started off directly to reconnoitre, and, finding the observatory deserted, he took the opportunity of visiting the store-room, and threw out of the store-room window every eatable he could lay his hands on, besides three respirators which you have not perhaps missed."
"I beg your pardon, I noticed their absence at once, but ventured to suppose that you must have taken them, in order to prolong your escapade," said Norbert.
"See how one is calumniated! In short, Costerus returned, and led us round Tebhali on the opposite side of the zig-zag road, and brought us to the commissioners' old quarters. You must bear in mind that all this time my arms were tied to the rifle which Costerus held, his finger on the trigger. In any case it would have been impossible for me to call out, since there is no sound in this confounded land. We reached the place where you found us, and have been here ever since-I, with my feet and wrists bound, and threatened with death if I made the least sound; they, plotting incessantly, and always making and
remaking fresh plans. I think they intended to attack you in your sleep, and get possession of the observatory. But they had not sufficient firearms ; that was why Costerus made that attempt on the store-room during your breakfast. He was discovered in time, happily for us all."

As the baronet ended his recital, his voice suddenly fell, and his eyes opened wide with an expression of utter stupefaction. He had just caught sight of Kaddour, whom he had not noticed before, amid the varied emotions of the past few minutes. His amazement at beholding him in life whom he had seen dead, was only equalled by the surprise with which he noted the familiar terms on which the dwarf evidently was now with the inhabitants of the Hall of Motors.

They explained matters to him, however, and he ended by trusting to the evidence of his senses that Kaddour really had risen again.

Virgil, meanwhile, was concerning himself with settling the prisoners as quickly as possible. He had cleverly repaired the broken windows and the smashed door, and had made a hole in the wall for the purpose of communicating with the circular gallery of the observatory, where the aerating well was. This secured a fair amount of breathable air to the three commissioners, and a cistern full of water was assigned to them also, as well as liberal daily rations of food. Norbert gave them his written instructions as to the amount of manual labour he required from them. It consisted of repairing and polishing a certain number of conical mirrors that had been injured by the catastrophe and rendered unfit for use. Norbert was rather disturbed in his calculations by this sudden increase in the number of the inhabitants, for it meant a larger consumption of air and provisions.
"I had calculated," he said, with a sigh, " on a sufficient supply of air for eight persons during twenty-two days. I must now only count upon enough for sixteen days, since there will now be eleven pairs of lungs to fill. We shall be obliged, before the end, to make large quantities of oxygen."
"All the more reason to get rid of these rogues !" cried Kaddour. He had been as restless as an enraged tiger ever since his tormentors had appeared on the scene. "Give them to me, Monsieur Mauny ; give them to me for two or three hours, and I undertake to suppress them in due form. It would be a general benefit! You will be able to keep your air for those who have a right to it, and humanity would be rid of some of its worst specimens."

But Norbert turned a deaf ear. He took the trouble, though, to explain to Kaddour that such sentiments were both cruel and revolting.
"Revolting!" cried the dwarf, writhing as if under a hot iron. "I should like to see what you would say if you had been kept in a metallic mould for fifteen years, and transformed into a monster! You would not then think any torture too cruel in return for such infamy!"
"True," answered Norbert, trying to appease the poor little creature. "But you must remember, Kaddour, that your wrongs are not ours, and that we cannot feel quite as you do about these wretches!"

The dwarf acknowledged the justice of this remark, and promised to restrain himself; but this was only a change of tactics on his part, and he asked that at least he might be allowed to take charge of the prisoners.
"You don't know them," he said. "They will play you some trick yet. They are traitors in every sense of the word ; and must not be lost sight of for an instant."
"Virgil will look after them," replied Norbert, not acceding to this last request either. "You would be a bad gaoler, Kaddour, on account of your rancour against these men. Humanity forbids me to give you this charge. If you want to prove your friendship to me, as you say and as I believe, never mention them again. You ought to forget that they are there, or at least behave as if you had forgotten it."

Kaddour looked down, but he was not convinced, and it was easy to see that nothing would ever overcome his hatred of his quondam persecutors.

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## CHAPTER XXV.

## A FRAGMENT FROM GERTRUDE'S JOURNAL

"We have now spent six times twenty-four hours on the Moon ; I could just as well believe it to have been six months if M. Mauny said so. One does not know what to expect about anything in this strange world! A day of a hundred and forty-four hours, with no apparent reason why it should come to an end even then, gives a new meaning to the word interminable!
"O night! what would we not give to greet thee again as of old! How little do our endless siestas here resemble the regular sleep that we enjoyed on the Earth! Well, I suppose we must expect some drawbacks in such a glorious enterprise as this!
"I shall go on with my journal. I began it for my dear father, and it is the only thing now that seems to bring me a little nearer to him. . . . Poor father! What, I wonder, is he doing ? . . . Why is he not with us, instead of being shut up in Khartoum ? . . . He must find it almost as hot as this, and perhaps matters are worse there. . . . Poor father! . . . When shall we meet again! ... I will at least write down my selenic experiences day by day, for him to read, if we ever have the happiness of being together again. . . . My uncle calls this life here a selenic existence! . . . It only means lunar; but it sounds better in Greek! ... Anyhow, this existence is both monotonous and strange. I am obliged to bite my finger at times to make sure that I am not in a dream. Every morning when I wake after some hours of sleep in the artificial night of my room, it takes five minutes and Fatima's solemn assertion, to convince me that I am really on the Moon. But, alas! I am obliged to acknowledge it at last, and then I don't know whether to laugh or cry!
"It is like being on board a large vessel, except that one cannot go and take a turn on the bridge; for the few steps we are able to take on the esplanade, thanks to those miserable boxes of oxygen, are not worth mention-
ing. The first time I went out, I thought it rather amusing to breathe only through that kind of tunnel, in jerks, just as one drinks, and to get over the ground by leaps like a grasshopper. But in the long run, it is tiring. A breath of sea-air would be much nicer, especially if I had dear papa's arm! . . . M. Mauny is the only one among us who enjoys being out. He went off again this morning, or rather I should say after breakfast, on a new expedition. He has gone to visit the other hemisphere of the Moon ; that one that the Earth has never seen, and will never see. It is somewhat curious that the Moon should always turn one side only to us, and never the other. It seems absurd when one first hears it. Yet after all, it is only natural, since she accompanies us in our annual journey round the Sun. She is like a child walking round a merry-go-round, and keeping her face always turned to the man who grinds the central organ ; the riders of the wooden horses lose sight of the child from time to time, but whenever they do meet her, it is always face to face. M. Mauny gave me this explanation, and I was not sorry to be told it. Well, to return to him. He has undertaken to visit that side of the Moon that no man has seen yet, not even with a telescope. We should not have minded being of the party, but he would not let us go. He said first that it was too far, being three hundred leagues off, and that it would take him at least forty-eight hours to go and return : then he said that the cold there would be terrible on account of the lunar night now prevailing : and, lastly, that he was obliged to take an extra allowance of oxygen, which it would be difficult to manage about if we were to go too. In fine, he went alone, with Kaddour, and a perfect museum of telescopes, retorts, and all sorts of instruments. His provisions consist of a few biscuits, two or three boxes of preserves, and a bottle of water. It is just like him to take so little for an excursion of three hundred leagues! I can hear you saying: 'What! take such a journey in forty-eight hours, across a country devoid of railways or even roads! Impossible!' He is
of a contrary opinion. He says he has made his calculations, and that it will take him eighteen hours to go (at the rate of fifty miles an hour); eighteen hours to return, allowing twelve to rest and take observations or notes. A journey on the Moon, remember, is made with seven-league boots! All the same, I wish he were back! $\ldots$ What would become of us if anything happened to him ? . . . Don't think I speak selfishly, dear papa: you know who I am thinking of when I say, 'What will become of us ?' . . . The baronet certainly would not be able to get us out of this, and take us home! . . . Poor Sir Bucephalus!... He is beginning to get over his captivity somewhat ; but he was in a sad condition at first! As his faithful Tyrrel, casting up his eyes, said, 'To think that two days' privation from tubbing should have such an effect upon a gentleman!' It was really very hard for him, though, and his personal appearance was not improved thereby. If you had only seen him, dear papa, with his beard all ragged, his cuffs tumbled, and his yellow hair falling over his eyes!... I know well what you would have taken him for!... You would have given him a shilling directly, telling him not to spend it in drink, and to go and look for work. Poor boy!... I ought not to laugh at him! . . . He gives me splendid lessons in English pronunciation, and if we were to stay here three weeks longer, the language of Shakespeare would have no more difficulties for me. Do you remember how we laughed one day in London, near Hyde Park, when neither of us could make the coachman understand? We shall have no more of that fun, for even Tyrrel understands my English now.
"I was saying it was like being in a big steamer. Our life is fully as regular. Every twelve hours we sleep. On awaking, which we call morning, the doctor goes his professional rounds: sees that the aeration is good, and the ventilators doing their work. He even extends his care to the three miscreants in the prison; you know how every human being is, in his eyes, equal in the sight of Hippocrates. On his return, we breakfast: then I give

Fatima her lesson, or learn my own. I am so glad to have the dear child with me, and I love her more and more every day. You will find that my pupil does me credit. She is wonderfully docile, and succeeds in everything she undertakes.
"For instance, she is the best of all of us at the deaf and dumb language taught us by my uncle. Fatima is at the head of the class after M. Norbert. Already they converse by signs with Kaddour, who sets up for being quite an adept. Yesterday he held forth on the subject of what he terms the General Grammar of Gestures. He is certainly making fun of us, but he himself is the most ridiculous object on the Moon! He will have it that it is the greatest mistake to bring up the deaf mute to express a particular vocabulary by signs; he says there is a universal language of gesture, which is the same in every land, and is, perhaps, the primitive language of humanity ; and that this is the language that should be taught, not only to deaf mutes, but to children in general, in order that they may thus possess a universal idiom. . . .
"Kaddour also insists that he knows this universal language, and has made himself understood in every country without the help of a single articulate word. The idea seemed to us so preposterous that we all burst out laughing. He inferred from our behaviour that we were suspecting him of still carrying on his old charlatanism, which, indeed, was our thought. He was so offended that he would not utter another word before he went off with M. Norbert. I am sorry, for one ought not to hurt the feelings of the poor outcast.
"I suspect, moreover, that M. Mauny took him off in order to console him and talk to him, since they under. stand each other by means of gestures; also, perhaps, in order not to leave him under the same roof with the prisoners. You have no idea how the little dwarf hates them. I told you why ; but you could not understand the extent of his hatred unless you could see the expression of his face when the execrated names of Gryphins or Vogel, or Costerus Wagner are uttered before him.
"Virgil has been in the dumps on account of M. Mauny having taken Kaddour instead of him. The good fellow thought it almost unjust. We tried to impress upon him that to be left in charge here was a much greater proof of confidence ; but there was no getting a single smile out of him till Fatima told him he was ungallant. You see, dear papa, I tell you everything, little and big.
"Virgil is invaluable. He is at present overseer of works; he is superintending the repairing of the solar-heat condensers on which the prisoners are engaged. My uncle and M. Mauny keep the electrical apparatus to themselves. I suspect that M. Norbert has kept to himself alone the secret of the central organs, for fear of some accident happening, such as that fatal escapade of Tyrrel's. Fatima and I spend three hours every day in making stuff bands, which are to play their part, I am told, in our homeward journey.
"No one here is idle except the baronet and his model valet ; and perhaps that is because they do not want to lose the habit. But Tyrrel can make excellent preserved turtle soup.
"Sir Bucephalus will have it that he is here against the grain ; that he took no measures to get here, and never believed, indeed, that the expedition would succeed. He says M. Mauny must get him out of it.
"' Get you out of it, indeed!' said M. Norbert to him yesterday. 'I am not obliged to do so, there is no reason why I shouldn't take English leave, as we say in Paris, French leave, as you call it in London!'
"You may imagine what a long face the baronet pulled on hearing this! One thought is a great comfort to him : the hope of relating his adventures some day. I don't know what he would do if he had not this to look forward to.
"M. Mauny is the only one who is thoroughly satisfied. He says that the Moon is the paradise of astronomers, and the finest observatory in space; that he would willingly pass two or three years here, and is so sorry that the lack of air necessitates our speedy departure. He can hardly
tear himself from his telescopes, even in the daytime. I don't know what it will be when night comes, the long night so favourable to astronomical research! He will have some valuable notes of this lunar excursion, I imagine !"
"Four hours later. I have been interrupted in my daily chat with you, dear papa, by uncle, who came to invite me to go out with him and Sir Bucephalus. You know how, ever since we came here, uncle has had a craving to find some vegetable substance, even if only a little moss or a blade of grass. He says it would be the greatest prize in his collection of herbs, and would make him famous! He has already fixed upon a name for this precious vegetable; it is to be called Brieta maxima or parvula, according to its size ; unless, indeed, it has to be simply Brieta selenensis. But, sad to say, we have not as yet found a single plant. Uncle is not discouraged, however, and we are now going out to hunt again. He declares also that the fine air of the Moon (for want of a more exact expression) does me a great deal of good, and that I ought to take exercise every day even in this climate, where fatigue is unknown.
"We started, therefore, merry as crickets, and in the best humour in the world. We descended the dried-up torrent from the Apennines, which were so nearly fatal to Sir Bucephalus. He pointed out to us the spot where the three conspirators awaited him to steal his oxygen respirator, and I can assure you his tragic ways whilst describing the affair did good duty for speech. By-the-bye, we found no air left in the torrent, which proves the truth of M. Mauny's theory: the air that was there for a few hours was only a modicum of terrestrial air. Leaving to our right the summit already explored by the baronet and M. Norbert, we continued our way down the long valley till we came to another gorge much deeper towards the south. There we found a coal vein level with the ground. The baronet stood and looked at it for some little time, thinking doubtless what a treasure it would be in Middlesex or Lancashire. But uncle and I did not take much interest in it, so we pursued our way: getting over the ground, be it remembered, by leaps of ten or twelve
yards at a time, and doing fifteen leagues an hour at least!
"Suddenly uncle stopped short. He stooped down, knelt down, tore a magnifying glass out of his pocket, and set himself to a steady examination of a sort of little green moss, scarcely visible on the back of a blue pebble. He got up at last in a state of lively emotion, and beckoned me to come and look. . . . Well, dear papa, we had made a discovery! The Brieta parvula lay before us. . . . Oh! it was very parvula indeed! A miserable scrap of moss, hardly perceptible, that I should have passed by a hundred times, or have taken it for a bit of the lava round about.
" Uncle was quite delighted, and it was a pleasure to see him so overjoyed. He shook hands with me, and we congratulated each other by signs.
"After a quarter of an hour spent thus, I began to think the Brieta had had enough attention, and as uncle did not seem disposed to move, and looked indeed as if he would like to take root beside his pebble, I made him a sign that I was going to the foot of the mountain, and would come back for him.
"Some secret instinct of coming glory must have impelled me surely; for I had not taken two steps beyond a little spur of the Apennines that marked a gloomy valley, when an unexpected sight met my eyes! I stood before an immense excavation that had evidently been $d u g$ out of the rock by human, or rather by superhuman hands!
"There was no doubt about it: what I saw before me was no freak of nature, but most certainly the work of creatures as powerful as they must have been intelligent! A gigantic staircase of admirable proportions led by gently sloping wide steps to a vestibule, supported by pillars, worthy of the Cyclops. They were four or five times loftier and larger than those of the colonnade of St. Peter's at Rome, and they were chiselled out of a single block of malachite, and upheld the whole front of the mountain itself.
"The vestibule led into a court that appeared seven or eight times larger than that of the Coliseum ; it was roofed

## THE CONQUEST OF THE MOON.

over, and lighted here and there by small oval windows. The whole was grand, lofty, and elegant beyond description. We saw nothing like it in Egypt, dear papa, nor on the Upper Nile, nor even at Nineveh. Gigantic monsters cut out of the granite guarded the entrance to the court. The walls were decorated with frescoes and highly-coloured paintings.
"It was all so dazzling, and at the same time so imposing, that I was quite dumfoundered. Whose were the powerful hands that built this edifice, beside which the very monuments of the Pharaohs dwindle into insignificance ?
"I tore myself away at last, and hastened to communicate to the others the discovery of these marvels. I found uncle still poring over the Brieta parvula, and the baronet with him. With much difficulty I prevailed on them to follow me. But when they saw the edifice, their astonishment and delight knew no bounds! Uncle was quite beside himself. He threw up his arms and leapt about, embracing me spasmodically; and after trying for some time in vain to show me by signs all he thought of the discovery, he at last tore a page out of his note-book, and wrote on it in feverish haste :-
"' My dear Gertrude, you are the first to discover a Selenite monument, and thus to place beyond the shadow of a doubt the fact that the Moon has been inhabited. It is a more important discovery than any that archeology has made in our days.?
" I did not understand very well at first why the discovery was thus important. But when I had thought about it, whilst Sir Bucephalus and uncle examined the mural decorations, I saw that such a monument must have been the work not only of intelligent beings, but also of beings who had arrived at a high degree of civilization.
"For, just as you said, speaking of the Pyramids, the very cutting and lifting of such gigantic stones is evidence that the workmen must have had a profound knowledge of mathematics, mechanics, and the analogous sciences. So now a doubtful matter is cleared up for us all. The dead

Moon was inhabited: and the inhabitants must have been most experienced architects and engineers. What a privilege for little me, dear papa, to have been the instrument of such a grand discovery!
"On our return to the observatory uncle lost his high spirits. Do you know why? Because when he came to examine his Brieta parvula under the microscope, it turned out to be identical with a terrestrial plant whose name I forget, but which is most common in polar regions; and this is, moreover, only a stunted specimen of the kind, too ! Poor uncle is dreadfully disappointed.
"It was in vain that I tried to console him by telling him that, at all events, it was the sole vegetable left upon the Moon. He answered that nothing but an absolutely new species would be accepted in the way of proof by terrestrial botanists : that they would look with suspicion on the origin of the Brieta, and, perhaps, say that we had brought it here with our mountain and observatory! It would be rather unfair of them!... But uncle believes his colleagues capable of anything in order to decry an original work! . . . .
"It is all very curious here, and, notwithstanding drawbacks, I wish you were with us to see these strange sights, dear papa!"

## CHAPTER XXVI.

## THE INVISIBLE HEMISPHERE.

Whilst making preparations for a visit to the invisible hemisphere, Norbert did not content himself with merely laying in a good store of chlorate of potassium wherewith to renew the oxygen in the respirators: he also invented, as a protection from the burning sun, a kind of hat-parasol furnished with a puggaree behind, to protect the back of the neck, and in front a linen peak, having at the level of the eyes two blue glasses let in as a preventive of
ophthalmia. Thanks to this ingenious precaution, Kaddour and he, with their scientific apparatus and sufficient provisions for two days, got through the journey of three hundred leagues from the crater of Rheticus to the other lunar hemisphere within eighteen hours, and without any accident.

Had they not taken all this care, they must, indubitably, have succumbed to the heat at the end of a few hours. It was very trying at all times, but it became perfectly intolerable when walking was prolonged. Norbert and his companion remembered the experiences of the desert, however, and knew exactlywhen it was time to rest, eat, or renew the gas in the apparatus with the aid of a little spirit lamp, fed by a modicum of oxygen, and a glass globe full of chlorate of potassium. They got to the end of their weary stage, therefore, less tired than they might have been. It was a cruel privation, however, not to be able to exchange ideas on a journey like this. But they managed to converse by signs, and Norbert improved in this simple art as they went along; in a few hours he was able to express himself intelligibly, and to understand all the dwarf said.

As they drew nearer the hidden face of the Moon, Norbert could scarcely contain his impatience, and kept gesticulating from time to time as follows :-
"I am positively dying to know what it is we are going to see !-Just think, Kaddour, what a singular piece of luck for an astronomer! I am actually about to behold what no one as yet has any idea of! ... The sublime panorama of the lunar light is to be unfolded for our benefit alone, and from this vantage-ground in space, forbidden as it is to earthly telescopes, we shall contemplate all the starry constellations of the solar world!"
"But do you not think it probable that the invisible hemisphere will be just like this one ?" asked Kaddour, wishing to be informed, and at the same time to save Norbert (whom he was daily learning to love more) from a dire disappointment.
"It is certainly probable," replied Norbert, "but it is not certain. And, besides, it is not merely the unknown
surface of the Moon that we long to see, but also the spectacle of the starry heavens from this new and incomparable point of view. It will be beautiful, Kaddour ! . . . We shall both feel that we are looking for the first time, as it were, upon the Great Bear, Cassiopeia, the Lyre, the Milky Way, and all the other familiar details of the sky; they will be brought out into high relief, and shown to the greatest advantage, on the black ground of this perfect night!"

Conversing thus by signs, Norbert, spurred on by his own enthusiasm, redoubled the pace, and took great strides of forty or fifty yards at once, so that the poor dwarf could scarcely keep up with him. Fortunately he had strong muscles, which made up for the shortness of his legs, and enabled him to match his strength against Norbert's agility.

At length the travellers reached a summit to the west that they had been nearing for some time past. Norbert rightly supposed it to form part of the "parailactic fringe," an intermediate region sometimes visible and anon hidden from the Earth on account of the libration of the Moon.

He did not make any mistake ; scarcely had they passed the summit when theSun became only partially visible above the horizon. It was behind the travellers, but in two, as it were, and it disappeared in proportion as they advanced. All at once it suddenly vanished altogether, and our friends found themselves, without any transition, plunged into the deepest night !

The temperature, at the same time, went down so considerably that they could not bear it, and were obliged to retrace their steps to the region of light, and come back again gradually to the cold darkness. Then, at last, the spectacle so longed for by Norbert burst upon him in its full splendour.

Innumerable stars gleamed like diamonds in an inkblack sky devoid of either Earth or Moon. They were as perfectly motionless as is the polar star. For three hundred and fifty hours consecutively they reigned in the still, cloudless atmosphere, and offered to the beholder
every opportunity of taking the minutest observations as to their altitude and configuration. It was, indeed, what Norbert had expected to see, but the reality was so dazzling in its grandeur that he felt quite intoxicated with delight.

When at last he recovered himself sufficiently to set up his telescope, he found himself almost paralyzed with cold. His jaws were contracted, and all his members felt numbed. His lungs could scarcely even breathe the oxygen of his respirator, and there was a tight pain across his temples; another minute, and he would have been quite frozen. . . .

He was turning back, with a gesture of impatience, to tell Kaddour that they must perforce return to the lighted zone, when on a sudden he caught sight afar off of a red glare upon the surface of the Moon herself. One might have taken its flickering to proceed from a beacon fire such as on European coasts give timely warning of some danger or impart some nautical information.
"It is a lighthouse or a volcano!" thought Norbert. Taking Kaddour by the hand as if he were a child of four years old, they ran towards it as hard as they could.

The violent exercise soon warmed them both, and they went such a pace that they soon got over the three or four leagues separating them from the fire.

It was, indeed, a volcano in miniature, for the orifice was not ten yards across. It was the last survivor of a myriad other craters now extinct for ever, the last spark of some gigantic fire that had once raged throughout the wide plain.

But, small as it was, the miniature volcano gave out a welcome heat. Kaddour and Norbert encamped thankfully beside the fire, and warmed their frozen limbs, delighted to be able to breathe freely once more. Every now and again the crater belched forth fire and smoke, and was lit up by the expiring flames, whilst a subterranean grumbling exploded ever and anon with a kind of sigh; after which silence would reign for an instant. During these intervals Norbert fancied he heard water flowing.

Looking about for the cause of the noise, he discovered,
at the foot of the crater on the opposite side, a minute geyser quite in keeping with the volcano that fed it. From it rose a waterspout about a yard in height, that increased to seven or eight yards when the explosions took place.

The water was not good: it was full of sulphurous cinders that made it nauseous; but still it was water, and a treasure, therefore, not to be despised. They determined to remain there; and, fortifying themselves with a substantial repast of biscuit, cold meat, and tea with rum in it, they wrapped themselves in woollen coverings and were soon fast asleep, taking the precaution, first, however, to renew the oxygen in the heat of the waterspout.

When he awoke, Norbert set up his telescope and studied the heavens. There was not time for him to take many observations, but he saw enough to give him an idea of what might have been the result to science had it been possible to set up an observatory there. For instance, in the case of a comet, he could have followed it at will, and have chosen the exact position from which to determine its orbit and calculate its appearance and disappearance : and have resumed these observations whenever he so willed at any time during fourteen times twenty-four hours! What a dream for an astronomer! . . . There was no use thinking of it now; but Norbert resolved, at least, to study one by one, and without a veil, the sister planets of the Earth at which he had so often gazed through the thick medium of our atmosphere.

He turned his glass first on Mars, whose continents and seas, polar-ice and twin Moons, were plainly to be seen. Then on Venus, dazzling with light, and so brilliant that she lit up the heavens around her, and cast vivid shadows on the surface of the Moon. Leaving Mercury aside, since he is only visible before sunrise or sunset, Norbert turned to the giant, Jupiter. He came into the field of the telescope, radiant and imposing, bound with his equatorial lines, and escorted by his four Moons! Norbert could scarcely master his emotion at the magnificent sight of this colossal globe, 12.34 times larger than the earth.

Never before had he realized the full grandeur of this majestic planet!

Uranus and Neptune were not visible. He looked at Saturn, remembering well the first time he had seen the planet, when, one day in his youth, he had been allowed to look through an ordinary telescope in a public garden, and had then and there settled on his future career! But what was that early impression to his present emotion, as he noted the clear brightness of the mysterious ring that surrounds Saturn as with a golden band: the ring appeared divided into three segments and formed of several concentric circles. The shadow it cast upon the planet, as well as the shadow cast by the planet upon it, and the bands encircling the globe, all stood out like a flame-coloured drawing on the background of the black sky. One might have thought only a few yards separated the Moon from the planet, and that one only had to stretch out a hand, as it were, in order to touch that fardistant world.

If he could have spared the time, what discoveries might not Norbert have made from such a vantage-ground in the fervour of his scientific genius! What interesting observations of the starry heavens! What studies in spectral analysis! He gazed at the wonders above him till time itself was forgotten, and he no longer knew whether he was in the Moon or suspended in space, beyond the condition of mortality.

On a sudden his sleeve was pulled, and, looking downcoming down from the highest heaven-he beheld Kaddour raising beseeching eyes to him.
"Ah! it is you, Kaddour? Do you want to look through the telescope? Wait a minute!". . .
"Do you know how long you have been star-gazing?" said Kaddour in pantomimic language.
"No! perhaps thirty minutes or more ?"
"Four hours!" answered Kaddour. "I should not have disturbed you now, only that I am afraid your friends will be anxious."
"You are right, and I am much obliged to you for re-
minding me, Kaddour. We must not alarm them uselessly. But just take a glimpse at the rings of Saturn, and at anything else you like in the sky. Then we will pack up and go back."

Twenty hours later the two weary travellers returned to the observatory, where they found everything going on just as when they had left it.

## CHAPTER XXVII.

## THE MANUSCRIPT.

WHEN they had rested, Norbert and Kaddour recounted their adventures in the invisible hemisphere, and heard in return a full account of Gertrude's discovery. Norbert at once announced his intention of visiting the Selenic monument without delay. Gertrude, with her little maid, and the doctor, accompanied him.

He had no sooner entered the nave of the edifice than his eye was arrested by a strange peculiarity in all the frescoes and bas-reliefs, which was indeed well calculated to strike the eye of an astronomer. Two Suns were represented in the lunar sky, one small, the other large.

His companions looked on with the deepest attention whilst Norbert explained on his fingers the reason of the phenomenon.
"There can be no doubt," he said, "that the big Sun in these decorations represents the Earth still in the incandescent stage, which is in itself a proof of the extreme antiquity of this edifice. Its preservation is due to the non-existence of rain, wind, or atmospheric disturbance of any kind, and the slight variations of lunar temperature have probably here but little deteriorating effect."

Remarking the pyramidal shape of the edifice, he continued :-
"It is evident that the Selenites were acquainted with the laws of mechanics long before the earth was sufficiently
cold to admit of life upon her surface. As weight is six times less here than on terrestrial soil, the buildings had to be raised accordingly on much wider and deeper foundations. The only shape that could be adopted in the Moon is that of the bee-hive, against which the winds beat in vain, notwithstanding its lightness ; or the mountain, that is proof against geological convulsions; or, again, the cone, or pyramidal shape. The Selenites knew this; hence their monument stands after millions of ages have passed by."
"What can this be ?" asked Gertrude, stopping short before a kind of triangular frame that she had not noticed on her first visit.

On examination it turned out to be an immense door, closed by means of metallic slides shutting like a fan one over the other. This door gave access into a second hall, which, unlike the other, was not empty. It contained many articles of furniture, all of them broad and massive, reminding one of a pyramid, even the seats going up also into a point. These latter, of colossal dimensions, were intended, apparently, for forms as gigantic as the Buddhas of the Indian temples. This hypothesis was confirmed by the discovery that they were all made of fine gold, now much tarnished by time. On the Earth these seats would have been of enormous value from a pecuniary point of view.
"It is marvellous!" spelt the doctor on his fingers. "The Selenites must have known how to make gold; they must have been possessed of the so-called philosopher's stone of the alchemists."
"What, uncle!" asked Gertrude, " is it possible that you believe in the science of alchemy ?"
"I do not believe that they have ever found out yet how to make gold, but I do not see why they should not succeed in this discovery," answered he. "Modern chemistry is day by day reducing the number of elementary bodies. For aught we know, she may one day find that gold is simply composed of a solidified gas, as common as nitrogen. It would only add one more to the long list of surprises in nature."

They had reached a door similar to the first, opening in the same way. In the third hall beyond, a marvellous sight awaited them.

In the middle of a pavement, made to all appearance of a mosaic of precious stones, rose an immense catafalque (if the eight or ten-storied structure could with propriety be so termed). On the highest story lay a marvellous statue, of colossal proportions, in the attitude of sleep, a ray of light falling on it through the crystal apertures in the roof. It was a sleeping statue of Hercules ; but how far superior to the earthly Hercules in every respect was this image of massive gold! its proportions so far grander than any moulded by sculptor, every muscle standing out with an exact fidelity to nature, and each limb rounded with a masterly and artistic touch.
"I must measure it!" said the doctor to himself, as, not without difficulty, he climbed the great steps of the catafalque.

When he reached the top he took a measure from his pocket, and had just ascertained the length to be thirty feet from the head to the feet, when under his very fingers the statue crumbled into dust! . . . Yet he had scarce even touched it. But no more was needed to destroy it.

The features disappeared in a cloud of gold dust, and in place of those features, that might have been the work of a Praxiteles, the doctor saw only . . . a petrified colossal human skull. That was, however, perfectly recognizable.
"A skeleton!" he cried. "It is the skeleton of a Titan!"

Caught up and repeated by four or five echoes, the voice resounded through the vast hall as if it had been the nave of some cathedral.

There was air in the hall, then!
The doctor's discovery was. so absorbing that they scarcely noticed this last fact.

It was indeed a human skeleton, thirty feet long. There it lay, still half-covered with its gold cuticle.
"It is just the length of the whale in the Jardin des Plantes," remarked the doctor, still bending over his
treasure. "So we may conclude that the Moon was inhabited, and that the Selenites were giants!"
"At all events this one was a giant," said Norbert, laughing, and enchanted to find his tongue unchained at last.
"Not only this one," replied the doctor from his high perch. "A gigantic stature was imperative to the inhabitants of the moon. As its gravity is six times less than that of our globe, trees, plants, animals, and Selenic men (when there were such) were necessarily bound to develop proportionably in height and muscular strength.
"But," asked Gertrude, "how do you explain this sudden transformation of a beautiful gold statue into a frightful
skeleton?"
"It never was a statue. Evidently the Selenites had a custom similar to that of Egypt, of enveloping their dead in thin metallic shrouds. I should not wonder if the perfect specimen before us had been so treated. This explains its lifelike appearance, and also its nobility of mien. Time, moreover, did his work, and left only the bony framework, whilst preserving the shape of the metal. I, by my imprudence, have destroyed what even the centuries respected."

The doctor was about to descend, when he noticed a roll of paper in the skeleton's hands. Taking it from its silent possessor, he found it was made of the fibre of the amianthus plant, and was inscribed all over with strange characters.
"Here is the greatest marvel of all!" he said, leaping down with his prize.

He was in such haste to examine it at ease, that he proposed an immediate return. They retraced their steps, therefore, conversing as long as they had air on the events of the day.
"The air that we have just left," said Norbert, "was at some time in the past ages hermetically sealed in that confined place ; it shows that at that period the atmosphere in the Moon must have been analogous to our nwn. Perhaps it has only lost its oxygen in the course of the ages, and hence has become unfit to sustain life. What remains
must, in my opinion, be pure nitrogen more or less. It would be easy to ascertain the fact, and also exceedingly useful to us now."

On returning to the observatory, the doctor made haste to study his papyrus. But after some hours of vain efforts he was obliged to own that he was about as far advanced as were Egyptologists before the discovery of the famous stone of Rosetta. ${ }^{1}$ He lacked the key.

Noticing his discomfiture, Kaddour asked and received permission to try his skill on the Selenic document. At the end of a quarter of an hour, he gave it as running thus :
"Sun, the son of the Northern Star, slept the last sleep on the fourth day of the ninth year of the thirty-second cycle."

This translation was received with some little incredulity at first; but Kaddour held to his point with so much vigour, eloquently demonstrating that, considered as an ideological rebus, the signs on the papyrus might at least bear his interpretation of them. The doctor was at last convinced, and could not but admire the sagacity of the little man.

On which the dwarf observed with some show of reason that the papyrus was a good instance of writing being used to represent, not words, but ideas, that were independent of language, and could be understood by all men alike.

Norbert at this moment returning from the chemical laboratory, where he had been shut up for some little time alone, inquired what was the subject they were discussing.
"I should be very much disposed for my part," he said at once, " to admit Kaddour's theory. It has a tendency to prove that the Selenites were accustomed to take the names of stars, which is only befitting to a race that possessed such exceptional opportunities of knowing all about the science of the heavens. The cycle here mentioned is probably a great astronomical cycle, which is a confirmation of our
${ }^{1}$ There were three inscriptions upon this stone: in Greek, Coptic, and hieroglyphics. It has served as the basis for all modern works on Egyptian caligraphy.
first impressions concerning the very great antiquity of this papyrus. . . .
"I myself, moreover," continued Norbert, "have made the important discovery that the lunar atmosphere is composed of nitrogen, mingled with some traces of oxygen. The density of the nitrogen is only $0: 162$, which is equal to a sixth of the density of the same gas in our terrestrial atmosphere. This fact is a logical corollary of the feeble intensity of weight on the lunar globe. It explains, also, the perfect transparency of this atmosphere, and its absolute dryness. Another phenomenon which puzzled me is now also made plain-that we can breathe for three or four hours or more with the small provision of oxygen in our respirators. A proportion of 20 to 23 per 100 of this oxygen mingled with 76 per 100 of lunar nitrogen, gives us air as breathable as that of Earth. As our respirators do not fit quite tightly on our faces, the two gases are able to unite, and so we are able to breathe freely."
"Well, that is something worth hearing," said the doctor.
"We are, in fine, certain," continued Norbert, "to have sufficient air now ; for instead of our being obliged, as I thought, to consume pure oxygen towards the end, we need only manufacture a mixture of nitrogen and oxygen, or, in other words, make as much artificial air as we want for internal use in the observatory."
"Then you are decidedly of opinion," inquired the doctor, "that the air of the Moon has been analogous to ours in proportion to its density, and that she has gradually used up her oxygen?"
"Precisely. We have the proof in the remnant of old air in the crypt of the Selenic building, and the fact that life, once existent on the Moon, has now disappeared. You will note, also, the visible predominance of iron in all the surrounding rocks: they are all deeply oxidized. The animal, vegetable, and mineral world of the Moon absorbed all its oxygen, and life then became extinct."

Norbert's news had put every one into good humour. They were all, therefore, eager to help him after dinner in
storing up heat for the needs of the long lunar night. For this purpose a number of solar-heat-condensers were set to work to heat gigantic stones, which were then buried under the floor of the store-rooms, so as to keep in a quantity of serviceable heat.

At the same time, large quantities of oxygen were fabricated, to renew the air of the crater, which was beginning to rarefy sensibly. They took this opportunity of ascertaining the amount still left of chlorate of potassium. They found thirty tons. It was just enough to furnish sufficient oxygen for eleven persons during eighteen or twenty days. The working apparatus was most simple, consisting only of a large oxidation case, through which passed all the air brought by an automatic pump from the subterranean reservoir to the inhabited part of the observatory.

These arduous labours took three times twenty-four hours to complete. They could only spare leisure for short quick walks now and again. But they were tolerably well acquainted now with the general outlines of both lunar hemispheres. The doctor had made a varied collection of rock specimens. Gertrude had taken ample notes of everything interesting. It only remained to bear patiently the long monotonous lunar night, until, with the return of the Sun, the conical mirrors would be once more set going, and the weary travellers make an attempt, at all events, to regain their native soil.

But what untold dangers might not attend this grand effort of the poor castaways !

Norbert was resolved to leave nothing to chance, or to the possible imprudence of one of his companions, as the whole responsibility rested with him, the leader and chief. He invented a new mechanism to set the central apparatus at work, but resolved to keep it a profound secret. It was similar to the patented lock of a strong box, and opened at a given word only. He alone henceforward had it in his power to estajlish the contact, and transform the rock of Tehbali into a magnet once more.

The last hours of the day were devoted to constructing a high iron fence on the esplanade to support a horizontal
axis of polished steel. On this was to be suspended at the right moment a large silken parachute, held open by a movable framework, and furnished with a car, in which the eleven castaways were to seat themselves, in readiness for their descent the moment the Moon was sufficiently near the Earth. Their weight would act as ballast, and bear the aërial ship towards the greater attracting power. The horizontal axis turning on the slopes of the frame would secure that the inversion should be made gradually and almost insensibly, the parachute turning round its axis somewhat after the fashion of a clock. The system of suspension, put into direct communication with the central electric organ, ought to insure an instantaneous separation of the parachute and frame, coincident with the sudden cessation of magnetic action. Norbert had the whole matter quite clearly in his mind. It only remained to put it into execution, which was easy, considering the resources he had to hand.

## CHAPTER XXVIII.

## ECLIPSE OF THE SUN.

Meanwhile, Norbert lost no opportunity of studying the heavens, especially the protuberances of the Sun, and he perceived that the latter was about to be eclipsed by the Earth. He hastened to inform his companions of the interesting spectacle soon to be unfolced before their admiring eyes. The enormous dimensions of the Earth, as it appeared in the lunar sky, led them to expect some wonderful optical effects, but the reality far surpassed their imagination.

They had scarcely time to take up their position on the esplanade (furnished with smoked glasses for the protection of the eyes, and with the indispensable store of oxygen), when the contact was established.
First, a golden crescent slowly wound round the Earth,


Little by little the golden aureole crept on.
casting a radiant aureole over the black disk. Little by little, as the Sun disappeared behind the Earth, the golden aureole crept on until it surrounded the whole circumference of the terrestrial screen, and completed the occultation, to the intense admiration of the spectators.

All around the immense disk, equal in appearance to fourteen Moons seen from Earth, shone an orange-coloured ring of light, bordered by a scarlet ring. The lunar landscape, which was now in shade, assumed a rosy tint that softened all the details, touching the summits and craters with violet-coloured rays of fairy-like beauty. Our travellers were so enraptured with the soft effects of the waves of light on the lunar landscape, that they could not for some time tear themselves away from the novel spectacle. But at length they returned to the drawingroom to exchange their ideas, remembering also that the eclipse would last some hours longer.

Norbert's first care was to photograph the country under its new aspect, as he had already done in its ordinary dress. He managed to get a tolerably good negative.

Gertrude had her thought too: impelled by pity she suddenly said to him, "Monsieur Mauny, I want to ask you a favour!" . . .
"Is it necessary for me to tell you that I shall only be too happy to grant it?"
"I cannot help pitying those four prisoners for not being able to see this marvellous eclipse. It is hard enough that they should be exiled on the Moon, and yet know nothing of her curious sights. "Could you not allow them to see the eclipse ?"
" Nothing easier. Virgil takes them for a walk twice daily round the circular passage. He shall let them out now."
"Oh, give them a complete holiday! Let them come on the esplanade. They could see nothing from the circular passage."
"Be it so. You have heard, Virgil, what Mademoiselle wishes. Let them out at once."

At this moment Norbert, happening to look at Kaddour,
who was helping him in his photographic operations, was amazed at the expression on his face of savage rage.
"What is it ?" he said. "Are you surprised that a little humanity should be shown those unhappy beings, worthless
though they be ?"
"Unhappy! Those vile scoundrels unhappy!" roared Kaddour, beside himself with anger. "Do you call them unhappy when they are only imprisoned in their own lodging, fed like princes, and have the easiest work in the world to do! Are they, forsooth, to be amused in addition? Ah! I would amuse them nicely if I had the chance! Apartments and rations and walks in the circular passage, indeed! They should be flogged and their tongues torn out with a red-hot iron! They should be lodged becomingly; in a barrel of boiling peas!"
"Kaddour, how can you speak so before Mademoiselle Kersain, or even think of such abominations? Have you lost all sense of human feeling ? Do you want us to take you for a Pclynesian savage, instead of a Frenchman ?"
"If these miserable wretches had made you suffer as they did me, Monsieur, you would see whether the thought of softening their prison life would occur to you!"
"Perhaps not, under those circumstances. But that is no reason why Mademoiselle Kersain and I should not wish to do so. Justice is not, and should not be, an act of revenge. She should prevent the culprit from doing more evil, but she cannot arrogate the right to inflict useless suffering. The horrible reprisals of which you speak are worthy only of cannibals: an educated, civilized man like yourself, ought to rise above such savage instincts, and to understand that his first duty is to abstain from copying the bloodthirsty ways of his enemies."
"But, in that case, they have the advantage, and he is victimized!"
"How so? Because the miserable beings who are debarred from further evil-doing are spared the sufferings they inflicted on him? What advantage would it be to him if they did suffer in like manner? How would that make up for his sufferings? Supposing that it were
possible, as doubtless you would like, to confine Gryphins and Vogel in an iron frame for fifteen years, would that lessen your past torture?"
"No ; certainly not!"
"Very well. I am not going to submit the prisoners under my control to any useless hardship. I therefore again request you to respect them so long as they are under my roof."
Just at this moment Virgil was bringing the prisoners through the circular passage to the edge of the esplanade. There was no danger of any attempt to escape, because of the impossibility of breathing without oxygen ; they were therefore left entirely free.

Norbert was afraid that this might exasperate Kaddour, and consequently sent him to the photographic laboratory, to take proofs from the negative. The prisoners were allowed two hours' liberty, and only at the close of the eclipse were they led back to their prison. Kaddour and the others were then summoned to witness the last phase of the phenomenon, which was quite worthy of the beginning.

On his return to his room, Norbert took the opportunity to question Virgil concerning the general behaviour of the prisoners. He learnt that they were tolerably submissive, and even grateful for the consideration shown them, but terribly lazy and most suspicious.
"I cannot get it out of their heads that you intend to leave them here when we go," said Virgil. "I have tried every argument I could think of to convince them of your good faith. But it is of no use. They have a rooted conviction that it is but natural you should treat them as doubtless they would not hesitate to treat you in like case."
"Tell them," answered Norbert, " that I am not going to let them escape a public exposure. They need not think they are going to get off with a few days' imprisonment. I intend to denounce them before the first tribunal available, before any jury, so long as it be composed of honest men, who shall arbitrate between them and me. They shall lose nothing by waiting, they may depend upon
that! But keep on repeating that I have not the slightest idea of leaving them here. Moreover, I shall take into account the assistance they have rendered in putting our machines into working order, and my indulgence shall be in exact proportion to their industry!"

The succeeding hours were utilized in making the final preparations for the coming lunar night.

Twenty-two tons of chlorate of potassium had been employed in the fabrication of the oxygen, that, flowing through a leathern tube, was to mingle with the remaining air in the crater. They had eight casks in reserve, and there was every hope that nothing would happen to prevent the final departure. The parabolic mirrors had all been repaired. It only remained to finish the work, depending on electricity and the needlework to stop up the interstices of doors and windows from the extreme cold, and lay in a good stock of patience for the prodigious night of 354 hours now so close at hand.

Having apparently taken his usual time to complete the half-circle, the Sun now drew near the western horizon of the lunar heavens. He reached it, and sank slowly behind the neighbouring mountains.

The spectacle was curious from its novelty, but there was none of the splendour that had signalized the eclipse, nor was there even the beauty of an earthly sunset. That marvellous lighting up of height after height, the clouds of purple and gold, the fanlike rays of light which the great luminary displays at the hour of departure, were unknown on the Moon, for the reason that the lunar atmosphere, being perfectly translucid, knows neither clouds nor vapour. The Sun therefore simply went down without any firework parade. His disk slowly sank lower and lower for the space of an hour, and then disappeared from view, leaving a few golden streaks on the higher summits for a few minutes, after which, without the transition of twilight, night settled down in all its darkness over the visible face of the Moon, whilst the other hemisphere awoke in its turn to bask in the light.

## CHAPTER XXIX.

## IN THE EARTHLIGHT:

Night on the visible side of the Moon is not nearly so dark as on the other hemisphere. It is rather a kind of clear twilight that softens all the surroundings.

Mdlle. Kersain had seated herself near one of the drawing-room windows to look out on the lunar landscape under its novel aspect. It was more fantastic now than it had been even under the rays of the Sun. The little flock of craters nestling at the foot of Tehbali were bathed in the silvery light on one side, whilst the other slept in utter darkness. Everything was perfectly motionless, and the cold, clear light lent such a strange weird appearance to it all, that Gertrude, mechanically as it were, looked about for the cause. Leaning out of the right side of the window, she caught sight in the heavens of an enormous star that she had never before seen. Its disk was immense, measuring apparently two or three yards, and it diffused a wan light similar to that of the Moon, only fifteen or twenty times stronger. Gertrude could not repress a cry of admiration mingled with fear. Norbert heard her, and came up at once.
"Look !" she said, pointing to the marvellous star, "What is that?"
"Do you not recognize your native land ?" said Norbert laughing. "That is the Earth. Our very own old Earth, who is kindly lessening the horrors of our lunar night by giving us her light. We shall have it all along."
"How strange, and yet it is only natural! I might have known that we should enjoy here the Earthlight in place of the Moonlight of other times. But it startled me at first to see that grand disk! It reminded me of the aspect of the Moon on the third day of the grand experiment, and I was really half afraid of another catastrophe? What are those clearly defined marks on a black ground! One looks a little like Africa,-there to the left?"
"It is quite the shape of Africa! It is Africa! If you
will come to the Hall of Telescopes I will show it you through the glasses."
"Really. Let us go directly! Fatima! Uncle! Come and see what no one has ever seen yet! The whole of Africa in the field of vision at once!"
"With the addition of half Asia and Europe," said Norbert, going towards the observatory, followed by all the others.

Here, seated in a comfortable armchair in front of the telescope, Gertrude enjoyed the great happiness of seeing not only Africa, but the limited region bounded by the Red Sea, the Soudan itself. There it was spread out like a map drawn in bright lines on a background of black clouds. The black clouds were the Ocean.
"It is really wonderful!" said Gertrude. "How clearly and distinctly we can see it! And to think that my dear father is there, grieving over the loss of his daughter! I feel quite near him, and yet never have I been so far away! My poor dear father! I know at least where he is! But he does not know where I am! How anxious he must be! What must he think? Oh! Monsieur Norbert, you who are so learned, can you not devise some means of sending him a message?"
"Alas! it is perhaps not impossible, but it would in any case entail very long preparations, without any strong probability of being understood, or even seen," answered the young man, deeply grieved to see tears in the eyes of the poor child. "But I beg you," he continued, "not to be so wretched. You shall see him again soon, I promise. We shall only remain here so long as is unavoidable. Wait till this night is past, and you shall see! Courage, Mademoiselle Gertrude! You have been so brave hitherto!"
"I will try," she said, with a faint attempt at a smile. " But you have no idea what I feel in seeing the world that contains my father, hanging as it were in the sky. It seems to me that I must be dead, and looking down on him ; or else that he is dead! Never did I realize till now the terrible distance between us!"
"What matters the distance, since we can traverse it!

We have done so already, and we will again by means of a machine that will not tarry on the way, and will travel twice as quickly as a cannon ball."

But Gertrude could not recover herself at once. Her voice was broken with sobs; she leant disconsolately on Fatima's shoulder, and they wept together for some little time.
"Come! come!" said the doctor brusquely. "You are not reasonable, dear child! Kersain is not any farther off because we are looking at the Moonlight, or rather, the Earthlight, without him! He sees us in the same way when the night is fine at Khartoum."
"Do you think he sees us now?" said Gertrude impetuously.
"Perhaps he does," evasively answered the doctor, making a sign to stop Norbert from expressing his opinion of the extreme improbability of this being the case.

The idea amused Gertrude, and somewhat diverted her from her grief.
"If he could but know I am here!" she murmured: "I could then fancy that our spirits communed one with the other across the intervening space : and yet, perhaps, it is best that he should remain in ignorance," she added in a melancholy tone.
"There is something else to see besides the Soudan," cried the doctor, to rouse her. "I can perceive," he continued, "a scrap of country down there that looks like France. She comes out well, seated comfortably between the Alps and the Pyrenees, holding out her two arms to the Atlantic."

Gertrude looked in the direction her uncle indicated, and saw, to her delight, France, situated between the clearly defined line of Italy, and the two little white spots that were the Britannic Isles. But her heart was in the Soudan, and her glance soon reverted to that side again. It was necessary to find out some way of diverting her thoughts from their sad subject. Happily Norbert hit upon the right chord:
" I think I have something to show you, too," he said
on a sudden. "But you must look in another quarter of the heavens."

He turned the telescope towards the constellation of Cygnus, that stood out brightly and distinctly as if composed of large diamonds.
"Look," said the young astronomer, moving aside to let Gertrude draw near the instrument.
"I see a little red ball, about as big as a mandarin orange."
" That little red ball is no less than your namesake in person!"
"My star ?" joyfully exclaimed Gertrude.
"Your star. The planet Gertrudia of happy nomenclature, who has come to pay us a visit after her fashion, by, appearing in the heavens just while we are here to see her."
" It is very polite on her part, and I am very pleased to make her acquaintance. She is not very big yet, poor little thing ; but I hope she is going on well."
"As well as possible, rely upon it. She is certainly of small dimensions as yet, for she is only equal to a thirteenth-hundredth part of the terrestrial globe. But she has a very advantageous place between Mars and Jupiter, and with her sisters the other telescopic planets, she revolves in a most interesting region of the solar world, so that, though rather long, her journey round the Sun is tolerably amusing."
"Do you think that she is inhabited ?"
"I have not the least idea. But there is no reason why she should not be inhabited. She possesses an atmosphere, and a geological constitution analogous to that of the Earth and of Mars. Her inhabitants (if they exist) must, it is certain, be extraordinarily light, and capable of tremendous leaps without any danger of breaking their bones: weight is absolutely unknown upon her surface, and if there be volcanoes there, the stones they belch forth fall, in all probability, upon other worlds. If there are children there, they can throw up stones which, instead of returning, will be lost in space. We see from this that the possible inhabitants of Gertrudia must be much taller
than the Selenites, because height is closely allied with intensity of weight."
"Therefore, the smaller a world is, the taller must its inhabitants be ?"
"Just so."
"I am not at all pleased to think that my star is peopled with giants, bigger than the old Selenites. How much taller are they ?"
"Perhaps sixty times as tall."
"Sixty times thirty feet! They must be giants, 1800 feet high."
"About ten times the height of the towers of Notre Dame. It would be rather curious to see a review of those fellows," said the doctor.
"I would much prefer them to be small, in proportion to their world," continued Gertrude.
"We must take them as they are. If you want Lilliputians, you must look for them in the largest of all the planets revolving with ourselves round the Sun. You must look to Jupiter."
"They must indeed be no bigger than ants there!" cried Gertrude.
"Perhaps," said Norbert laughing, "they are even quite microscopic. Doubtless their sight is proportioned to their height. But one must own that all these comparisons ought to teach human vanity a good lesson, especially the kind of vanity that takes a complacency in some inches more or less in height."

This was said for the benefit of Kaddour, who saw the delicate attention, and bowed his thanks.

They had returned to the drawing-room, as the hour of breakfast had come.
"I really feel cold already!" cried Gertrude, surprised at a fit of shivering which was now an unusual sensation with her.
"It is cold, without any mistake about it!" answered the doctor. "I wager that we stand two or three degrees below zero already; and see! the baronet's teeth are chattering."
"I! The idea!" exclaimed the latter. "I can assure you, my dear doctor," he continued, "I have gone through much worse cold than this. Why, I went up Mont Blanc in nothing warmer than a woollen vest!"

The baronet prided himself on his Anglo-Saxon hardihood, and never wore an overcoat, even in the depth of winter, taking good care, though, to be clothed with flannel from head to foot.
" I congratulate you, my dear sir, if you are impervious to cold," answered the doctor, somewhat ironically. " $I$ can't flatter myself to that extent, and I must own that I should not be sorry to see a good fire, for I am simply frozen."

Just as he finished speaking, his words were suddenly emphasized by a loud report inside the walls.
"What is that ?" cried Mademoiselle Kersain.
"Only a stone bursting," replied Norbert simply. "It is freezing hard enough to make the pipes burst, as we say on the Earth, and one of our stones slightly damp still, probably, in spite of the lunar Sun, has burst like a shell. Fortunately, there are very few of them in the observatory walls ; otherwise we should be treated to a perfect concert of reports. But the pyrites employed in the construction will not burst, for it is perfectly water-tight, and almost as ductile as metal."
"Anyhow, we must prepare for severe cold," said the doctor. "If it is as bad as this only an hour after sunset, what will it be in twenty or thirty hours' time! I doubt very much if we shall be able to stand it."
"If the worse comes to the worst," replied Norbert, "we can but migrate to the other sunlit hemisphere. But I hope we shall not be compelled to do so, for judging by the cold when I was there with Kaddour, Io degrees below zero, I think we shall be able to bear the cold here."
"Bear cold of io degrees!" cried the doctor. "You must have graduated at the same school as Sir Bucephalus ! As for me, I must confess that I prefer hot countries."
"So do I. When I talk of the cold being bearable, I only mean that it will be compatible with life and with our
terrestrial habits. We have, besides, taken our precautions. Get out two or three hot stones, Virgil : they will warm us somewhat. Mademoiselle Gertrude had better open her trunk, too, and take out her shawls and mantles."
"I am rather badly off in that respect," said Gertrude. "I did not think I should require much at Suakim and Khartoum."
"Well," answered Norbert, "Sir Bucephalus and I must in that case turn out our wardrobes and see if we cannot find some warm coverings for you and Fatima."

But Sir Bucephalus shook his head.
"You don't mean to say you have no overcoat," exclaimed Norbert. "Well, never mind: perhaps you can find some sort of woollen covering, or it is more probable that you have at least an ulster, for I have remarked that, although you Englishmen despise ordinary overcoats, you always take care to provide yourselves, when travelling, with the thickest rugs and most splendid ulsters."

Every one laughed at this sally, even the baronet, who offered no explanation of this national characteristic.

Virgil appeared at this juncture, laden with three enormous stones in a copper basin. They had been heated to a white heat by the solar-heat condensers, and buried. They were still very hot, and soon raised the temperature of the drawing-room in an appreciable degree.
"What a capital idea!" said the doctor. "It is a great pity that it is not known on Earth; when one thinks of all the poor wretches who freeze in winter-time, and that if they would only utilize the solar heat, they would be warm! Civilization has a great deal to learn yet. They know that the easterly wind is sure to come sooner or later, and yet they do not store up the blessed heat that is showered down upon them!"
"They do utilize it in the shape of coal, wood, and the other combustibles," said Norbert; " for wood and carbon in their various forms are nothing else but stored up sunshine."
"That is true. But you must own that they might collect it more directly."
"Have I not been one of the first to prove that fact, since the solar heat brought us here?"
"It was not the best thing to do," said the doctor.
"But it will take us home again, dear doctor."
"Oh, in that case I shall be most grateful!"
"Apropos of carbon," said the baronet, " do you know that there is a splendid supply in the bed of the dried-up torrent?"
"In the torrent where you were stranded ? So there is, and it will make a magnificent fire. Not for you, of course," maliciously continued Norbert. "I know you are above such trivialities, but we poor feeble Frenchmen shall enjoy it. Unfortunately fire burns up oxygen, which we cannot spare ; so we must try to bear the cold bravely, like the English!"

## CHAPTER XXX.

THE LUNAR NIGHT.
The lunar night wrought changes in the habits of our friends. They were oftener together, chatting round the stove filled with hot stones; sometimes they organized sharp runs of a few minutes at a time in the outside world ; but in spite of all precautions, they felt the cold terribly. It was all in vain that they collected every bit of available clothing, even making use of the silk stuffs stored up in the silk factory, and invented, each for himself, the most fantastic toilettes, made of any non-conductor of heat, the doctor appearing in a suit lined with newspapers. Nothing was of any use to keep out the intense cold ; and even the baronet's Saxon hardihood could not keep his teeth from chattering.

The strangest thing was that the cold was absolutely independent of atmospheric influence, for there was neither hoar-frost nor snow, nor black frost, nor indeed the least
breeze astir. The thermometer fell hour by hour below zero ; it fell to $20,25,30,35,40$ degrees; but the landscape did not change ; it presented always the same monotonous aspect of silence and desolation, lit up by the pale clear light of Earth.

The fact was easy to explain. The atmosphere of the Moon being absolutely free from damp or vapour of any sort, all the attendant phenomena of these varying conditions of Earth's atmosphere were conspicuous by their absence in the Moon. The monotony of the long night was broken from time to time only by the splendid aurora borealis that ever and anon flooded the heavens with gorgeous streamers of blue or purple light, disappearing as suddenly as they had appeared.

Doctor Briet had been very anxious at the beginning of the severe weather about his niece. Keeping his fears to himself, he was more than doubtful whether she would be able to bear the intense cold, and in his solicitude neglected nothing to warm and strengthen her feeble frame. But, to his extreme surprise, he saw at the end of a few days that she bore it better than any of them. She seemed, in fact, to be getting stronger. She no longer coughed, and had lost the alarming hectic flush which had caused her father so many anxious, sleepless nights. Never had she appeared in such radiant health as now, and the doctor ventured to hope that the dread malady of consumption had been checked.
"The dry climate of the Moon must be decidedly the very one for consumptive patients !" said he. "Never did I see so rapid, so extraordinary a cure! Not only has she lost all alarming lung symptoms, but her general health is decidedly quite restored! She stands this Siberian cold better than any of us. It is a veritable transformation! If we ever see her father again, and he demurs at his daughter having been involved (without any fault of ours, certainly) in our adventures, the brilliant hue of her cheeks will plead on our behalf!"

Gertrude threw herself with renewed vigour into the work Norbert had entrusted to her and Fatima. They
had to collect all the pieces of silk, and sew them together with strong twist, for the purpose of making a large parachute. There were many of these latter in the storerooms; but Norbert would have one large enough to hold them all. This entailed making a cage thirty yards in diameter, and would certainly have been a task impossible for Gertrude and her little maid to have executed in the limited time at their disposal, had not Virgil obligingly offered his help. He could sew as well as a sail-maker, which is saying a great deal.

Norbert, with the doctor and Kaddour, concerned himself with setting right the electrical organs of his great magnet. They had enough to do, for the terrible shock had wrenched the delicate mechanism. Norbert had to steal hours from his sleep to take the astronomical observations he so prized. He alone, of all the colony, was thoroughly happy, and he would have contentedly borne a much longer night.
"Never," he said, "had it been given him before to be able to take such precise and fresh observations with so little trouble as to the commencement or end of his operations. A year in such surroundings would be productive of greater results to science than a hundred years of study in the terrestrial atmosphere. What would it have been had he but some of the powerful telescopes of the great observatories! But he must be contented with the means at his disposal. I should be glad," he continued, "could I but count on five or six lunar nights of fourteen or fifteen times twenty-four hours! Nothing more would be needed to place me in the first rank of astronomers."
"Let us stay, then, in that case !" cried Gertrude. "We will willingly make the sacrifice, although it is certainly not inviting."
"The intention is gracious, and thank you for it. But you know well that it could not be. Our time is strictly limited by our provision of breathable air."
"Then do we start at the dawn of day?"
"Not exactly at dawn, but about forty-eight hours after the return of the Sun. That is the minimum of time
necessary for the preparations, that can only be made in daylight."

Amidst these labours the prisoners were not forgotten. Norbert made a point of being extra kind to them, to make up for their sufferings from the severe cold. He had charged Virgil to see that they had their share of the heat derived from the hot stones, and additional clothing was given them. Twice a day, in addition to their normal rations of food and wine, they were given tea, rum, and beer. Every time that Kaddour witnessed these indulgences he was seized with a fresh excess of rage that found vent (do what he would to suppress it, out of regard for Norbert) in savage howls and convulsive contortions and grimaces. Once more Norbert essayed to reason him out of his petty rancour. "I have already told you," he would say, "that I will not encourage your feelings of revenge. I do not wish to hear any more on the subject. Why can't you give up this violence? It is so unworthy of your education. Forget it, do, my dear Kaddour, for your own sake and for ours!"
"Forget it, indeed!" replied the dwarf, with inexpressible bitterness. "Let him forget who has not suffered as I have! But as for me, the poor despised being, treated everywhere with contumely, the deformed monster at whose appearance women and little children shudder,how can you expect $m e$ to forget? Think what a hell these men have made of my life! Had it not been for your goodness, I should never have known the meaning of gratitude or affection! If you could only have one day's experience of my lot during thirty long years, you would then understand my intense hatred of these wretches!"
"Kaddour," answered Norbert, putting his hand affectionately on the poor dwarf's shoulder,-"Kaddour, you will never convince me that you are justified in giving way to your anger. I know you we re very cruelly treated by these individuals; but try to be superior to them : show them that they have not been able to degrade your heart! Forgive them! Rise above the sadness of your lot! I
know it is hard, but let me have the happiness of seeing you conquer yourself!"

The dwarf looked at him wildly.
"You ask too much!" he cried in a hoarse voice. "I know you are right, but I can't ; I can't do it! I am an accursed being who is out of place among respectable men! Leave me to act in accordance with the character they imprinted upon me!"

He wept copiously as he spoke, and hid his face in his hands with a wild gesture of despair.

Norbert saw that he had made some effect upon him, and went on to add, -
"Listen, I shall try an experiment. Your hatred is fed chiefly by memory. To accustom you to see your enemies without emotion, I shall permit you to accompany Virgil to the prison, trusting that you will abstain from insulting defenceless men."

From that day forward the dwarf became calmer outwardly. Twice a day he went to the prison with Virgil, and slaked his vengeance by looking at them doing their enforced work. This seemed to suffice, for he ceased to talk about them.

The interminable night dragged its weary way along, each hour growing colder and colder. As the thermometer lowered, the buried heating stones lost their caloric, and ceased to affect the temperature. At last the cold was so terribly severe that even Sir Bucephalus could hold out no longer.
"I would give my eyes for a good coal fire !" cried he, on rising from the dinner-table. Every one chorussed his wish, and Norbert yielded to the general consensus.
"It is folly on our part," he exclaimed, " but for once we must be foolish. We will have a fire. There is coal in the valley: let us go and fetch it."

In less than ten minutes Virgil and Tyrrel were ready. Seizing some sacks, they reached the valley with great leaps, and brought back a good supply of anthracite from the dried-up bed of the torrent. This was heaped up in a hole made for a chimney in the wall of the circular
passage, and set on fire. For two hours they enjoyed themselves thoroughly, roasting their backs and faces, and making tea and hot rum, winding up with a dance. It did them all good, and strengthened them to go on bravely to the end.
" Well, we are extravagant!" said Norbert, shaking his head. "To think that we have just burnt up for our enjoyment the breathing ammunition for twenty hours!"

Fortunately the long night was now near its close, and after a little more suffering, during which the thermometer sank two or three degrees lower still, the Sun made his appearance in the east, one fine day, just as they were getting up from dinner. There was no dawn. A fringe of rays was seen on the horizon, followed by a fragment of disk peeping up as if over a wall. This soon increased in size rapidly, and rose into the heavens, tipping all the craters and summits with gold.

The day had returned for three hundred and fifty-four hours.

## CHAPTER XXXI.

## THE COMMISSIONERS AGAIN.

"Come," cried Norbert, "let us not lose a minute, but do our best to get out of this misery as soon as possible! It will not last long now. I shall go at once and overhaul the solar-heat condensers and the other machines, and Virgil and Kaddour shall set them going. In forty-eight hours at the latest, we shall begin the descent. In six days, eleven hours, and eight minutes we shall reach the Earth!"
"Why," asked Gertrude, "are we to take three hours longer to descend than it took the Moon to come down to the Earth ?"
"Because she is at present farther off from the Earth.

But first of all we must renew our store of oxygen for this last week. Virgil will do this, whilst I go on a tour of inspection. Will you come, doctor ?"

The doctor assented, and joined Norbert. Gertrude and Sir Bucephalus were glad to accompany them into the welcome warmth of the sunshine after their long deprivation of its cheering rays.

The inspection of the conical mirrors made, they were turning back after their agreeable walk of about twenty minutes, when Virgil suddenly made his appearance at one of the side doors of the observatory. He was evidently a prey to some violent emotion, waving his arms, and signalling to his master to hasten. They ran up to him.
"A great misfortune has happened, sir!" he exclaimed as soon as Norbert had come back into the hearing atmosphere of the observatory.
"What is it ?"
"The chlorate of potassium!" . . .
"What about it ?"
"You know that there were eight barrels full just before the lunar night? Now there is only one!"
"How! only one left?"
"I am as much mystified as yourself; but so it is. All the barrels are empty, excepting one alone!"

Norbert could not believe his ears. It sounded incredible. He ran to the store-room, where the barrels had been placed.

They were there, all in a row, as he had seen them fourteen days previously. But Virgil had spoken true. All but one gave a hollow sound when struck. They were empty. There was only one possible explanation: some one had stolen seven tons of chlorate. And the prisoners must be the culprits. It was a terrible situation. One ton of chlorate of potassium could not possibly furnish sufficient oxygen for eight days' consumption.
A cold chill of horror crept over Norbert. Was it to be his fate to see Gertrude suffocated for want of air in this strange world to which he had brought her ? A hundred
times no! Anything but that. The prisoners should be put to death, the others placed on rations, rather than that Mademoiselle Kersain should be in want of oxygen for a single minute! . . .

But the mystery had to be solved at once.
Followed by Kaddour and Virgil, Norbert went to the prison (where the three commissioners received him without a word), and proceeded to make a thorough search throughout the building. "Seven tons of chlorate of potassium," said he, "are not a trifle, and it could not be very easy to hide them !"

The walls were sounded, the ground taken up in ever so many places ; but all in vain. No chlorate was to be found.

Then they searched all the neighbourhood. The circular passage, the store-rooms, the whole observatory were examined with the help of the electric light, and the pickaxe and hammer. They could find no trace of chlorate. Yet it was impossible that it could have been used up, or have evaporated. There had been no heat for fourteen times twenty-four hours. Besides, how could prisoners have managed to carry out such an operation?

Norbert and the doctor felt a growing suspicion stealing over them. Was it possible that Kaddour ? But, no! the thought was too odious. The dwarf must in that case be a very monster of hypocrisy. The whole tenour of his behaviour since the castaways had admitted him to their intimacy militated against such a supposition. Norbert would not entertain the idea for a moment. Still!

Kaddour himself seemed to have a kind of intuition that he was being suspected, and was naturally therefore more upset than any one about their loss. He ran about the observatory, looking frantically for the chlorate everywhere. Poor wretch! His very excitement increased the suspicions of the others, who deemed it but affectation on his part. He divined their thought, and on a sudden he thus addressed Norbert,-
"The thief is either I or Costerus Wagner, the foremost of the three scoundrels. If I cannot prove that it is Costerus Wagner, I will blow my brains out!"
"Why take things so violently, my dear Kaddour ?" answered the young astronomer. "I shall be only too glad if you succeed in proving the guilt of Wagner."
"Then let me question him before you."
" Be it so. Let us return to the prison."
As they went along, Kaddour explained how the excommissioners might have got into the store-rooms during the night, through their air-hole. No one else would have stolen the chlorate: they were capable of it.
"To what end ?" asked Norbert.
"We shall soon find that out."
Kaddour was not mistaken, at all events on this point. Costerus Wagner did not deny his guilt. He even boasted of it.
"I did not tell you just now," he said with a jeer, "because you did not ask me. If, instead of sounding the walls, and looking under the flooring, you had deigned to question me, I would have told you!"

Such insolence of demeanour was insufferable.
"And may I ask you," cried Norbert, "how and why you have committed this theft?"
"How ? is our secret. Why? I will tell you why. We are tired of being kept in a cage, working like niggers for no practical end. I looked about for some way of forcing you to set us at liberty, and I have found it. You will either admit us instantly to your society, or you will have to go without chlorate!"
"Enough!" cried Norbert. "Come, Kaddour, I shall consider what had better be done."

He went out, rather relieved to find that the chlorate of potassium was not irrevocably lost. If the worse came to the worst, they could but accept the conditions laid down by the scoundrels. If only himself were concerned, he would of a certainty have made short work of them and their threats. But the safety of Gertrude was at stake! . . .
"Well, Kaddour, what would you do in my place ?" said Norbert on his return to the drawing-room, where only the doctor, Sir Bucephalus, and Virgil awaited him.
"I should accept their conditions, and when they had
restored the stolen goods I would lodge two or three balls in their heads!" said the dwarf, without a moment's hesitation.
"Those may be the tactics of the Soudan, but they are not mine," replied Norbert. "My poor Kaddour," he continued, "why are you always so blinded by hate as to have lost all sense of honour ?"

Kaddour bent down his head at this just reproach, but after a minute he said, "In that case, we must find the chlorate without the assistance of those villains. Will you give me a pick-axe and an electric lamp?"
"Willingly. Take all that you need. I shall be only too pleased if you succeed."

Kaddour equipped himself, and, taking a store of oxygen, sallied forth.
"Where is he going ?" they all wondered. "Does he suppose that the prisoners could have buried seven tons of chlorate in the ground ?"

It seemed a ridiculous idea.
At the end of an hour the dwarf returned.
" The chlorate of potassium is at the bottom of the crater of Rheticus," he said. "Those villains took it in sacks, and threw it down the opening of the well that supplies us with air. I have just found it all in a heap underneath the well, at a depth of three million yards. I opened the crater, and after a thorough examination eclosed it again."
"Can it be possible that you have not made any mistake, Kaddour ?" cried Norbert, scarcely daring to believe the good news.
"Here is the proof," continued the dwarf, taking out of his pocket a handful of chlorate of potassium, which he laid on the table.

There was no gainsaying the fact now. After warmly congratulating him on his discovery, they took counsel together concerning the fate to be awarded the three criminals.
"What is your opinion, doctor ?" asked Norbert. "What ought to be done with these wretches under the circumstances?"
"It is an atrocious crime," said the doctor, "and on board ship it would be visited most certainly with death. It is, perhaps, rather more heinous under existing circumstances. I am not a man of violence, and it is very much against the grain to have to utter such a verdict. But, on my soul and conscience, the scoundrels deserve the worst."
"And what do you say, Sir Bucephalus ?"
"There cannot be two opinions about it," peremptorily replied the baronet. "These villains are a permanent source of danger. Fraud, treason, and treachery are their favourite weapons, and it is useless to expect either gratitude or repentance from them. I vote for their death."
"And you, Kaddour ?"
" Death is too good for them, that is all I have to say."
"And you, Virgil?"
"Indeed, sir," said the brave Algerian, "I have seen many a poor devil of a soldier shot for not the quarter of what these villains have done! . . . And in time of peace, too! Discipline is discipline."
"What do you counsel?"
" Death."
Norbert was silent and thoughtful. He was, perhaps, about to endorse the verdict of his companions, when Gertrude opened the door. She had come to fetch her work, some cloth slippers she was embroidering in spare moments for her dear father.
"Pardon me!" she said. "I am afraid that I am disturbing you. You all look like conspirators, sitting round the table."

The agitating crisis of affairs had been kept secret from her: neither, indeed, had Fatima nor Tyrrel the least conception of what was going on. Not one of the five judges could shake off his stern mood sufficiently so as to answer her back as lightly as she spoke. Gertrude was slightly affronted at this unaccustomed want of courtesy.
"I shall go," she said. "I can see that I am not wanted!"

She disappeared. But she left behind her, as it were,
the "gentle dew of mercy," and Norbert could not resist its influence.
"It is too horrible to think of putting these men to death in her neighbourhood," he thought. Then aloud: "My dear friends, there is one difficulty (which has perhaps also occurred to you) in the way of executing summary justice on these criminals. We stand in the position of being at the same time both judges and prosecutors in the case. I cannot but own for my part that we have the strongest personal interest in their death, forasmuch as it would lessen the consumption of oxygen, and consequently increase the amount of our breathing gas. It appears to me that this is sufficient to render our sentence invalid. It is true that these men have deserved death; but that does not give us the right to be their executioners. I propose, therefore, to grant them a respite, and take them before an impartial tribunal on our return to Earth."

The doctor, the baronet, and Virgil agreed. But Kaddour screamed aloud, and nearly choked with anger.
"I quite understand, and, to a certain extent, sympathize with your feelings," said Norbert to him. "But it is settled. The prisoners shall have the benefit of a respite. All that I can do for you, my dear Kaddour, is to put them under your surveillance, as well as under that of Virgil ; but I forbid you to ill-treat them in any way, or even to speak to them at all. You have only to see that they do not go beyond the limits of the prison."
"I'll take good care of that !" cried the dwarf, his eyes flaming with baffled rage. "I shall begin by walling up all the openings, and leave them only just enough space to get air through."
"That is precisely what I term an unnecessarily hard measure," said Norbert. "Wall up by all means, but not more than is needful."

Virgil and Kaddour were not long in collecting materials wherewith to close up the prisoners' breathing-hole, till it was no bigger than the port-hole of a vessel. The prisoners looked on in horror, terribly afraid that they were to be buried alive.
"My good friends," murmured Costerus Wagner in hurried accents; "can it be possible that you intend to wall us up alive ?"
"Deuce take it!" replied Virgil. "Since we have only a ton of chlorate left, we must at least take care to keep it all for our own use."

Costerus and Company looked at each other in dismay, and conversed apart in low tones.
"We have not destroyed the chlorate," explained Costerus, "and we are quite ready to indicate its whereabouts, if we are only treated a little better."
"Indeed!" replied Virgil, plastering on with supreme unconcern. "You are too late with that offer. It just happens that we can do without your chlorate."
"I am delighted to hear you say so," said Costerus, whose countenance denoted anything but unmixed satisfaction. "In that case, you would surely not punish a harmless offence so severely?"
"Everything rests on the intention; and I do not think you were very well disposed towards us," said Virgil, as he laid his first stone.
"But, surely, you do not really mean to suffocate us?" cried Vogel, more and more terrified.
"What was your intention in taking away our air ?" retorted the Algerian sharpshooter.

The three wretches, baffled this time, were so ill-advised as to turn to Kaddour.
"Sir," said Peter Gryphins, "will you not intercede for us? We have not the pleasure of knowing you, but we cannot believe that such an odious crime will be perpetrated in your presence."
"No!" shouted the infuriated dwarf, who, up to this moment, had kept silence with difficulty, out of obedience to Norbert's instructions. "No! You cannot believe that so odious a crime can be perpetrated? Such things do happen though, sometimes! Have you never heard talk of a certain child who was stolen from his family by two co-partners of a travelling circus, who walled him up for fifteen years in a steel corslet to prevent his growing?

The story was related to me, and I thought I had never heard its equal for brutality. Shall I tell it to you, Peter Gryphins and Ignaz Vogel ?"

The two wretches, from being pale already, became perfectly livid ; their eyes dilated, and seemed as if starting out of their sockets.
"Shall I tell you, my masters," pursued Kaddour, "how this child was sold by you to the Viceroy of Egypt ; how at Cairo he lived the life of a curious beast or domestic animal for twelve years ; how he fled to the desert, where he instigated rebellion and incited the natives to war; how he subsequently found himself in the Moon; and how, throughout it all, one fixed idea governed him-the determination to be revenged on you? But I need not detail the history ; you have recognized me, and you know now what to expect. Yes, Peter Gryphins; yes, Vogel ; it is I, Midgy, ex-general-in-chief of the Myrmidons of the Sultan of Batavia! Me, whose flesh you kneaded and mutilated, to sell it, first to the general public, then to a Viceroy. I have grown a little-at least four inches-since you lost sight of me. The chin of the child now bears a man's beard. But it is I all the same, scoundrels! I have you at last within my grasp, and I won't let you go!"

Kaddour might have gone on indefinitely in this strain : the unhappy men had ceased to listen to his words. Beside themselves with amazement and fear, they had fallen on their knees before him, beseeching mercy with outstretched hands. But he would not even look at them. Maddened with rage, he heaped stone upon stone in feverish haste. Virgil quickly plastered, and in a few minutes only a square aperture of a few inches in size remained for the passage of air through the leaden tube.

## CHAPTER XXXII.

THE PARACHUTE.
Some minutes after the late terrible scene between Kaddour and his old tormentors, Virgil took provisions to them,
and reassured the unfortunate men with the intelligence that the only penalty inflicted on them was to fetch the chlorate back from the bottom of the crater of Rheticus.

They did this with such alacrity that the chlorate was all restored within twelve hours, although this entailed enlarging the orifice of the crater, going down it, and filling their sacks to take them to the observatory twenty-seven times in succession. The fabrication of oxygen now proceeded rapidly, whilst the machines were set going to charge the electro-accumulators. At the expiration of forty-eight hours, the time fixed by Norbert, the preparations were completed. The young savant announced the welcome fact at breakfast-time, and then proceeded quite calmly to establish contact.
"Now we start," he said, looking at his chronometer, and making a note in his pocket-book. "We shall arrive in a hundred and fifty-five hours and eight minutes, not counting the seconds."
"Arrive where ?" asked Gertrude.
"In the Soudan. I had a motive yesterday in hurrying matters so. The position of the Earth at this moment is such that we have every chance of descending on the desert of Bayouda. Had I waited one hour longer, we should have fallen on Bengal or Cochin China. It was, you see, advisable to make as much haste as possible!"
"If you had asked me," said Gertrude, pouting a little, "I would have preferred descending at Khartoum !"
"Believe me, I should have been only too delighted to please you in that respect," murmured Norbert, "but there was one great difficulty in the way."
"What was that?"
"We should have had to wait seventeen years longer!"
Every one laughed on hearing this, not excepting Gertrude herself.
"And if some accident," pursued Norbert, "should have prevented our departure at the precise minute, the long delay would have been perfectly useless."

Life in the observatory went on the same as before, and
it was difficult to believe that they had changed place. Only their implicit reliance on the calculations of the young astronomer led them to place faith in his assurances that they had really started. Before retiring to rest, however, they perceived a sensible difference in the diameter of the Earth, now in her last quarter ; and Norbert confirmed by micrometrical measurements the fact of her increased size.

Thenceforward there was not the shadow of a doubt: drawn by an irresistible force, the lunar globe was for the second time advancing to meet the terrestrial globe!

Virgil good-naturedly announced the fact to the prisoners when he took them their food; but to his great surprise they appeared actually discomfited at the news.
"I can't understand the blackguards!" he muttered as he left the prison.
"What do you say, Virgil?" asked Gertrude, who overheard him.
"I say there is no means of satisfying the prisoners, do what one will! You know how kind I have been to them, according to master's orders. They have had wine, beer, rum, coffee, biscuits, everything they wish for ; and still they are not contented."
"It is because they have not the one thing they value, liberty," said Gertrude laughing.
"Why did they abuse the liberty they had, then, by plotting against master, who is a thousand times too good to them? How, think you, do they thank him for it all ? By refusing to believe that he intends to take them back to Earth : they persist in asserting that he will find some way of leaving them on the Moon!"
"How base!" cried Gertrude. "What wicked men!"
"I must confess that I am sometimes tempted to let them believe it : it is a good punishment for them."
"No! that is cruel, Virgil. But they are, indeed, base not to believe in the good faith of M. Mauny, when he has given them so many proofs of it."
"They judge him according to themselves, you see, Mademoiselle : they are three villainous rogues !"

When Norbert heard this, he thought it right to go himself and reassure the prisoners.
"I hear," he said to them, "that you think me capable of leaving you here. You misjudge me, and you do not seem to appreciate the sacrifice I made in sparing you, instead of leaving Nature to do her work at that time when oxygen was so invaluable! But do not suppose that you are to escape scot-free for all that. I spared your lives, not in order to abandon you, but that I may deliver you up to justice as soon as we reach the Earth. Make yourselves happy on the point, then. You shall return to the Soudan with me, but I do not promise you golden hours there. You shall return, however, without fail."

The prisoners listened to these words in a gloomy silence, and for some little time they were quieter. But they still had their suspicions, especially of Virgil. At last no one took any further notice of their fancies, for they saw everything in the light of their own jaundiced minds, and it was hopeless to try and undeceive them.

The descent proceeded rapidly. Seventy hours after starting, the Earth visibly increased in diameter, appearing like a large ball of a uniform colour, on which the continents stood out distinctly, and were of a yellow hue, whilst the seas were steel gray. The rotation was so plainly evident that the different regions of the globe made each their separate entry at the eastern side of the disk, passed like light clouds over its face, and disappeared on the other side.
"It reminds one of the figures in a magic-lantern," said Gertrude, "making their appearance to the right and their exit at the left corner."

It was in truth a fairy-like scene. Through the telescope they could plainly discern mountain and forest, snow tipping the summits and clothing the Polar regions; whilst a line no thicker than a hair was guessed to be the Mississippi or the Amazon, and a black speck every here and there was evidently some large town.

London was easily recognized by her position and her
shape. She appeared as a brown spot, about as large as an insect's wing.

It was not long, however, before these details were hidden from sight by a band of thick clouds, massed together, doubtless owing to the increased lunar attraction.

The terrestrial globe presented the same appearance as before, growing visibly larger; only she was now enveloped in a thick floating mist.

Towards the hundred and twentieth hour, which corresponds to the fifth day, the interposition of the Earth between the Sun and the Moon was sufficiently marked to bring on a night of seven hours. It could not be called an eclipse, for it was not a partial nor an instantaneous occultation of the solar disk, but her total disappearance behind a gigantic screen across all one side of the horizon.

When the Sun reappeared, the clouds obscuring the Earth parted for an instant, and Norbert distinctly saw through the telescope a sea covered with vessels. It was the Mediterranean. The waters were so limpid that they did not hide the conformation even of the ground intervening between Sicily, Sardinia, and Tripoli. Then the clouds closed again and the scene disappeared.

The final moment was approaching, and it was time to put the last touches to their preparations. Aided by the doctor, Virgil, and Kaddour, Norbert began by fitting the parachute on a large iron frame that had stood ready for the past eighteen days in the middle of the esplanade. It was shaped like a triumphal arch, and bore in front a steel arm that turned freely on two well-greased hinges. From the arm hung the cord that suspended the parachute, and a small electric cable was wound round the latter, having direct communication with the central organ of the magnetic mechanism. Within arm's length hung a chopping knife in its sheath, and by pressing a spring, this knife would cut the cord and electric cable clean through. This would, at one and the same time, set the parachute free, and arrest the magnetic action of Tehbali.

No one but Norbert knew the secret of this machinery,
and he fully intended to keep it to himself, and leave nothing this time to chance. The parachute was thirty yards across. It was made of the pieces of silk prepared in the store-room, and pieced together by Gertrude and Fatima under Norbert's superintendence. The cords of suspension were passed through a large hole in the centre, and it was held open by a steel frame like that of an umbrella. It was so made that it could be taken to pieces when the parachute should have reached an atmosphere sufficiently dense to keep it wide open without assistance.

The car was hung by silken cords to the edge of the parachute, and was made of a slight circular framework two yards in diameter. Round this was a silk netting at elbow level, with eleven spaces left for the oxygen respirators that were subsequently to serve also for seats. A basket of provisions, a box of clothing, an aneroid barometer, and a thermometer completed the contents of the car. Above it, passed through pulleys, hung the suspension table in such a position as would admit of its being cut with perfect ease, as we mentioned above.

The whole machine, as it stood there fifteen inches high, looked like a clock, and was perfectly subject to its main-spring-the steel arm.

The parachute had been ready for two or three hours, when the Sun disappeared anew behind the terrestrial screen, and deep night prevailed in that part of the esplanade where the travellers were assembled. It was darker than any night they had ever seen, for not only was there not the slightest gleam of starlight, but the sky itself was completely gone: its place was occupied by the terrestrial globe. It was the darkness and silence of a dead world.

Seated round a table, on which burnt an electric lamp, in the observatory drawing-room, the castaways were silently awaiting Norbert's signal for departure. Intense emotion filled each heart, for they felt that the supreme moment had come which was to bring with it salvation or death.

On a sudden Norbert rose, and turning to Gertrude,
"It is time-We have been a hundred and fifty-four hours en route. In thirty-eight minutes we shall be on the Earth. It is time to seat ourselves in the car of the parachute."
"I am ready," answered Gertrude, rising at once. "Come, Fatima!"

Taking each their respirator, led by the doctor, they went out to the esplanade, and took their seats in the cat of the parachute. Norbert, who had accompanied them, returned to hurry Sir Bucephalus and Tyrrel.
"There is no time to lose," he added. "I have just ascertained that the parachute is already considerably out of the vertical position. In a quarter of an hour at most, all must be finished! Do you and Tyrrel take your places. Virgil, Kaddour, and I, will go and get the prisoners."

The baronet and his model domestic hastened to the esplanade, whilst Norbert proceeded towards the storeroom to choose out some respirators for the prisoners.

He had just reached the circular passage, holding his electric lamp, when a sharp blow on his right shoulder knocked the lamp out of his hand, and two strong arms at the same moment seized him round the waist.
"You were going without us, were you? But you shall not!" cried a voice that Norbert recognized as that of Costerus Wagner. He struggled vigorously, and caught a glimpse between whiles of two more figures close at hand.
"Kaddour! Virgil! Help!" cried Norbert. "The prisoners have rebelled!"

Happily, Kaddour and Virgil were not far off. They saw in the twinkling of an eye what had happened, and each rushed upon his man. Norbert, with the energy of despair, had mastered his assailant, and held him pinned to the ground by one knee on his chest. It was Peter Gryphins.

With a well-directed blow in the stomach, Virgil knocked over Costerus, whilst Kaddour, seizing Vogel with his strong arms, soon made him bite the dust.
" There they are; all three!" cried Virgil, taking stock
of the victory. "Scoundrels! to behave so, just when we are come to liberate you. But how the deuce did they get here ?" continued he, looking all round.

The electric lamp that had been deposited on the ground threw a ray of light directly on the wall, and made it evident that the stones had been quietly and patiently loosened; so that it needed but a well-directed blow to knock them out and leave a great breach, through which the prisoners must have penetrated into the circular gallery.

It was necessary, however, to come to some immediate decision. Had the three victors been armed, there could be little doubt that they would have summarily settled the matter. But as it was, they were at a loss how to turn their victory to account.
"If master and Kaddour could manage to hold this villain," said Virgil, "I would fetch cords and have them all tightly bound in a trice."
"Quite right," answered Norbert. "Hand us over your charge, and make haste."

Virgil did as he was bid. Seizing the already halfstrangled Costerus by the neck, he brought him over to Norbert and Kaddour, who gripped hold of him without slackening their grasp of the other two.
"Take the lantern with you!" shouted Norbert. " Don't lose a minute!"

Virgil obeyed, and disappeared into the store-house. The prisoners at once struggled madly to escape, but they reckoned without their host, for Kaddour could have easily settled them all.
"If you dare to move again, I will choke you," he said, squeezing their throats, and chuckling horribly. The savage threat had the desired effect: not one dared to move again.

Virgil had already returned with a bundle of cords. He cut off several lengths with his pocket-knife, and in a few minutes the three prisoners, strung together in a row like sausages, were placed standing against the wall. The fight had so exhausted them that they said not a word, but submitted silently to their fate.
"Quick now, the respirators!" said Norbert. "We will fasten them on their chests, and carry these rascals to the parachute."
"What!" cried Kaddour. "Do you mean to take them after this attempt of theirs ?"
"Their attempt has nothing to do with the question," replied Norbert. "These men ought to be judged and sentenced by a regular tribunal. I have vowed that the world shall know what they have done, and I will keep my vow. Come, Virgil, bring the respirators, and let us make an end of it once and for all."

The Algerian sharpshooter obeyed with military promptness, but Kaddour was not going to be silenced.
"It is incredible !" he said. "When you have ready to your hand such an easy way of punishing them, how can you take the trouble to drag them down to another tribunal. You shall leave them here. Have they not by this last mean treachery lost all title to your indulgence? Think you, had the tables been turned, that they would have saved you ?"
"I do not model my conduct on theirs," replied Norbert coldly. "Not another word, Kaddour ; these men are to come with us. It is true that they are vile wretches, the blackest villains ever seen, perhaps. But it shall never be said that I took upon myself to leave them exiled on the Moon, with the inevitable prospect of death from suffocation. They are now harmless, and I am not going to lower myself to their level by doing what you suggest."

Virgil came back with the respirators, and fastening one on each prisoner, put the mouthpiece over their faces.
"Take this one first," said Norbert, pointing to Peter Gryphins.

Virgil took him up, but the dwarf did not move.
"I suppose I must help you, since Kaddour won't," said Norbert, stooping down to grasp the legs of the bound man.

But the dwarf planted himself at the door, and muttered hoarsely,-
"These men shall not go out from here! I will not have it!"
"Kaddour, have gou lost your senses? I am master here, and these men shall go out."
" Not so, if I can prevent it," replied the dwarf.
"Do you mean to employ force ? " said Norbert.
"Certainly ; if it is necessary."
"Kaddour, I did not expect you to rebel. Have you forgotten our relative positions, and the fidelity you promised me? I am sorry to be obliged to remind you of your protestations. But you are acting in a way that is quite inconsistent with your duty."

This appeal went home, for Kaddour's eyes filled with tears. But he did not move an inch.

Thinking he was perhaps ashamed, Norbert signed to Virgil to take up Peter Gryphins by the shoulders whilst he grasped his feet. But Kaddour would not yield.
"It costs me more than I can say to appear ungrateful and to disobey you," he said sorrowfully. "But it is a settled thing. These men shall not go out from here whilst I live. They belong to me, and I do not feel inclined to give them up to any other tribunal."

Meanwhile the travellers on the esplanade wereastonished at the prolonged absence of the others. The doctor's voice was suddenly heard calling out:-
"Are you coming, Mauny? There is no time to dawdle. The parachute is already at an angle of twenty-five degrees."

Norbert looked at his chronometer, and was surprised to find so much time had passed.
"We have scarcely seven minutes left," he said. "Kaddour, in the name of all that is sacred, let us go by ; do not oblige us to use force. You are putting us all in danger. Don't you know that every second is precious? Soon it will be too late. We shall all be lost."

The dwarf folded his arms, and remained motionless. "Go!" he said. "I do not prevent you. But these men shall stay here."

## CHAPTER XXXIII.

## THE DESCENT.

"MUST I blow your brains out, or will you obey me ?" cried Norbert, beside himself at the obstinacy of the dwarf, and rushing to the door to get a rifle.

Kaddour respectfully moved aside to let him pass.
Norbert ran to the drawing-room, but could find nothing in the dark. He glanced at the window, and to his horror saw by the light of the electric lamp hung on the parachute, that, far from exaggerating, the doctor had not stated the full urgency of the situation. Instead of an angle of twenty-five degrees, the parachute now formed an angle of thirty-five degrees, causing the esplanade to appear like a precipitous slope. A few moments more, and the enormous clock-like machine would be at right angle with it!

It was the precise moment he had fixed for adjusting the suspending cord. Not only would it be terribly dangerous, but it was absolutely impossible to delay another minute.
"Virgil! Doctor!" he cried, rushing back to the circular gallery, "there is not a moment to lose! Take a man each on your back and come!"
"These men shall not pass !" repeated Kaddour, barricading the door with his great arms.

Exasperated beyond endurance, Virgil threw himself on the dwarf, and tried to pull him down. But Kaddour simply seized him by the wrists, and held him as if in a vice. Virgil could not move.

The struggle could not be maintained any longer. Norbert saw the hand of the chronometer drawing nearer and nearer to the supreme instant. "Come!" he said. "We must give it up. We cannot sacrifice all our lives, and especially that of Mademoiselle Kersain, to these individuals. Quick! To the car! You are doing an unworthy act Kaddour, and I will never pardon you!"

Satisfied now that he held the prisoners in his grasp, as
time was in his favour, Kaddour stepped aside to let Norbert pass.
"Quick to the parachute!" cried the latter, leading the way.

Just as he got to the outer door, Norbert perceived that Kaddour was not following him, and turned back to call him.

The gallery door was locked!
"Kaddour! Kaddour!" he cried, trying to force it open. " "Make haste! Come! We have not a moment to lose!"

No reply. It was but too true, there was not a moment to lose. The hand of the chronometer was pitilessly nearing the final second.
"Kaddour!" cried Norbert for the last time. "Come! I will forgive you, but come! We are going!"

Still no reply.
With an agonized scare of hopelessness, Norbert was obliged to return to the esplanade.

It was but just in the nick of time.
The angle now made by the parachute as it turned round its suspending axis, was such, that Norbert had to climb the steel frame, and slip down the cords into the car.

Once again he looked at his chronometer. The supreme moment had arrived! A hundred and twenty seconds more, and if the travellers delayed longer to launch themselves into space, a terrible collision would ensue between the two worlds, crushing the parachute midway.

Norbert held up his arm towards the place where the cord was to be cut. At that instant Kaddour appeared at the threshold of the observatory. He held the electric lamp above his head, and looked at them.
"Come! Come!" they all said, simultaneously holding out their arms to him.

But he sadly shook his head, and waved an adieu with his handkerchief.
"It is too late now," thought Norbert. "The lot is cast, and it would be wrong to wait any longer." He touched the spring. Instantly, without the least shock, the para-

chute was set free, and fell rapidly and softly through the air.

At once the observatory, the esplanade, and the whole plateau of Tehbali disappeared from view in the darkness, almost before the travellers knew what was happening. The Moon, suddenly freed from her terrestrial attraction, sprang back to her own orbit amid strange rumblings around that were an evidence of the catastrophe inevitable in such an upheaval of Nature ; and ever and anon a lurid light flashed with lightning-like swiftness across the sky.

The parachute, yielding to the superior attraction of the larger and heavier of the two globes, fell so rapidly towards the Earth, that the aneroid barometer went up at the rate of two degrees a second.

And yet the car seemed to be motionless, for not the slightest breath stirred, notwithstanding the speed at which they were travelling.

The only indication was the marked elevation of the temperature in the circular floor of the car, consequent on the rapidity of motion.

Norbert did not think fit to moderate the pace whilst they were going through the upper regions of the terrestrial atmosphere. He had, as well as he could tell, cut the cord of contact at a height of 30,000 feet above sea-level. But when the barometrical needle indicated a height of 15,000 feet, knowing that there was now breathable air, he decided to undo the springs of the steel frame, and take it off altogether in order to lighten the apparatus.
"Come, Virgil, throw out our ballast at once, quickly!" said Norbert, taking off his own respirator.

Every one heard the order, and Virgil hastened to obey. The framework of the parachute was soon undone, and thrown out of the car. It disappeared instantly, falling much faster than the silken covering which floated in the air.
"In a few minutes we reach Earth!" said Norbert. "We should have been there sooner had we kept our frame, but it was necessary to insure a gentle fall."

They all imitated him by taking off their respirators.
It was strange that no one seemed particularly joyful at the prospect of a speedy termination to their dangerous descent. The terrible parting scene in the Moon had doubtless much to do with the prevailing gloom, and it was still further intensified by the black, silent night that surrounded the parachute as it fell faster and faster through the region of chilly, damp clouds. The fog was so thick that the travellers could not distinguish each other's faces at the distance of a yard, and the electric light shone through a kind of watery halo.

This strange apathy was harmful to all, and Norbert made an effort to counteract it.
"In a few minutes," he said, "we shall touch Earth. I hope we shall come down softly; but possibly, however, the first shock will be somewhat rough. We had better throw everything useless overboard at once. We will begin with the respirators. As soon as I tell you the supreme moment has arrived, you must each hang on by your hands to the circular floor of the car. Do you feel equal to it ?" he added, turning to Gertrude, who seemed very dispirited as she sat leaning on her uncle's shoulder, with an arm round Fatima's neck.
"I hope so," she replied. "But I cannot help thinking of those poor creatures whom we left up there. . . . They haunt me. . . . How could we abandon them ? . . . What must they think of us? . . . What will become of them? . .. They hate each other so. . .,. What a terrible fate !"
"I tried hard to bring them," replied Norbert; "but Virgil and I were powerless against the obstinacy of Kaddour. I could not sacrifice the lives of all of us, and perhaps the safety of the terrestrial countries on which the Moon would have fallen. I went to the extreme limit of patience. If I had waited but two seconds more, in the chimerical hope of overcoming his obstinacy, a terrihle catastrophe would have ensued. I was obliged to bow to necessity."
"But what did Kaddour want?"
"He wanted us to abandon his enemies on the Moon,
and he forcibly resisted our attempts to bring them with us. Of course, we could not agree to so barbarous a proposal, but I never imagined that the unhappy dwarf would carry his obstinacy to the point of sacrificing his own life to the fury of revenge that possesses him. Had I dreamed that he could be capable of this, I might perhaps have taken measures in time; but you know how artfully he has latterly avoided all allusion to the prisoners. He even neglected purposely to visit them, in order to distract our attention from his hatred. Then, at the last moment, the wretched criminals made a desperate attempt to overpower Virgil and myself. Had they succeeded, I need not tell you that the consequences would have been not a little disastrous for us all. There was a tremendous dispute at the end, which I was obliged to cut short, because there was by that time not a moment to lose."

The nearness of the Earth became more and more evident by various signs. A tolerably strong wind had sprung up, blowing the parachute towards the west. The darkness was still excessive ; but, looking downwards intently, Norbert could now vaguely distinguish shadows of trees and landscape features. On a sudden, a fine rain began to fall, which did not, however, inconvenience the travellers, who, sheltered by the parachute, were rather glad than otherwise to feel once again this unaccustomed sublunary impression.

They soon found that the wind abated as the rain fell. But the moisture increased the weight of the silk, and Norbert perceived that they were falling a little too quickly.
"Be on your guard!" he cried. "Let every one throw their respirator overboard!"

They all did so simultaneously, and the descent slackened at once.

Almost immediately afterwards a gust of hot wind arose, bringing with it a quantity of sand, which dried the parachute in a few seconds, and blew it eastward again.

The car knocked against some obstacle, and slowly passed it by with a rustling noise.
"A tree!... We are down!" cried Norbert. "All get out and hang on to the bottom, keeping your feet well off the ground. There is no danger, if you contrive to escape the first shock! Do you all understand? Must I help you, Mademoiselle Kersain? . . . And you, doct-—?"

A great bump cut him short. The parachute was on the Earth. All the travellers held on manfully, except Tyrrel, who fell out head foremost, whilst the car slightly rebounded.
"Take heed to the second shock!" cried Norbert. "It will be the last but one. Hold on well! I shall jump off with a cable. . . . But don't move!" . . .

He did as he said ; and at the moment that the machine, after another rebound, touched earth for the third time, Norbert, who had seized the opportunity to jump out, stopped it finally. The silk at once fell over him, and covered him with its folds.
"Disentangle yourselves! Get on your feet!" he cried, half-smothered. "We are on the Earth!"

## CHAPTER XXXIV.

## ON THE NILE.

After a breathless struggle, the travellers emerged, one by one, from the flapping folds of the parachute, and were not much hurt. One had a bruise, another a sprained wrist, Mdlle. Kersain a scratch on the arm, Fatima a bump on her forehead, and Sir Bucephalus was slightly stunned. They all experienced a strange sense of fatigue, as if their members were half-paralyzed, or as if leaden weights were fastened to their feet. But along with this was mingled an intense satisfaction at finding themselves once more on terrestrial soil. Fatima expressed this feeling with her usual naiveté. Falling on her knees, she literally kissed the Earth, saying, "M $M_{V}$ mother!"

It was the only parent she knew, poor child! As to the doctor, he was quite as much stunned as Sir Bucephalus, but his professional instincts never deserted him, and his first act was to feel for his case of instruments ; his second, to feel the nearest pulse at hand.
"Good pulse!" he murmured mechanically. "Regular and full. Eighty pulsations. Keep to a regular and nourishing diet!"
"Eh! doctor?" exclaimed Norbert laughing. "It s easy to see that you come from the Moon!"
"From the Moon? Well, I really think . . . But where are we now?"
"I would willingly tell you if I knew. . . . All that I can say is that in all probability we are in the Soudan, and most likely in the Nubian desert. The soil is sandy, certainly, and that may have softened our fall. We can't expect to find out more in the midst of this thick darkness."
"I never saw such a black night, except, indeed, just now on our way down through the air. Well, one is thankful to be once more on terra firma! How are we all getting on ? How is Gertrude ?"
"Mademoiselle Kersain says she is all right."
"And you, Sir Bucephalus ?"
"Rather knocked about and squashed, but without any vital injury, I trust."
"And you, Virgil ?"
"At your service, sir, and ready to begin again if needs were."
"Bravo!" said the doctor. "That's what I call pluck! ... Let me see, now. Fatima is there. And Tyrrel ? where is Tyrrel ?"
"Yes, indeed! Where is Tyrrel ?" echoed Sir Bucephalus.

A hollow groan answered this query. It seemed to come from the ground. Groping on all fours, Virgil at last knocked against a human form that felt like that of the model valet. But what on earth was he doing there?
"Hallo! comrade, what are you about?" asked Virgil, on finding that the body did not move, but remained head downwards and feet bent back to the ground.
"I don't know where I am," answered a sepulchral voice. "I have earth in my eyes, in my nose, everywhere! And I feel so heavy that I really must have broken all my limbs!"
"Rubbish! You fell head foremost in the sand, and you have still got your nose in it," replied Virgil, who began to understand the state of affairs. "Come, come, comrade, get up ; the Nubian desert isn't a bath."

Suiting the action to the word, Virgil at last set Tyrrel on his legs, and, holding him by the arm, brought him back to the others, who were all seated, without ceremony, on the bare ground.
"There, now!" he said; "you are not in little pieces yet, you see!"
"Oh, here you are, Tyrrel !" exclaimed Sir Bucephalus, suddenly recovering his temper. "I thought you had given me the slip, my fine fellow! You have no desire to go back to the Moon with us, perhaps ?"
"Go back to the Moon," said Gertrude horrified, "I hope most sincerely that no one dreams of it, not even you, Monsieur Mauny ?"
"I am not so sure of that," answered the young astronomer. "We left so much behind us worthy of deep study, I wouldn't at all mind making the journey again with the same companions."
"It is very gracious of you to say as much, but if you will excuse me, I would rather not."
"What do you say, Tyrrel ?" said the baronet. "Will you let me go without you?"

The poor model valet made a gesture of horror.
What! Return to that objectionable Moon that he secretly execrated! Return there, when he was simply longing for the delights of Curzon Street, and for all the social importance that belonged to the butler of a baronet, in place of the bohemian life of the past few weeks! The thought was terrible, and it came upon him like a great
shock, as unexpected as it was unwelcome. But Tyrrel never paltered with principle.
"I am at your service, sir," he said heroically, in a hoarse voice, indicative of the inward struggle.

Fatima heard this conversation with terror, and her mistress, who was holding her hand, feeling a nervous tremor run through the poor child's frame, resolved to put an end to the joke.
"Come, come, my little one," she said. "Our troubles are ended for good and all. Your master is only joking," she added to Tyrrel.

Fatima heaved a great sigh of satisfaction, and Tyrrel's voice recovered its ordinary tone as he said to his master,-
"The basket of provisions is here, sir, if you would like something."
"That is the best speech I have heard for a long time," exclaimed the doctor. "We can't do better than have a little impromptu supper at once in honour of our arrival on the alma parens."

They searched about for the provision basket, and found it with the electric light, under the folds of the parachute. The little repast gave them fresh strength, and by the time it was concluded the first streaks of dawn had appeared in the east. They could make out that they were in a vast sandy plain, over which, every here and there, were scattered clumps of palm-trees, whilst a dark line of foliage in the distance evidently indicated the presence of water.
"I shall be very surprised if it is not the Nile," said Norbert. "As soon as it is quite daylight we will go and see."
"Why wait?" asked Gertrude. "Let us go at once. It will be a nice change to walk in fresh air without those frightful respirators."
"You are rather hard upon the respirators. We owe them our safety, after all." . . .
"Well, well, you may call me ungrateful if you like, but, all the same, I must own that I greatly prefer the air of Earth to the purest oxygen in the Moon."

Every one agreed with her, and without further ado they left the parachute to its fate, and went towards the distant trees.

It took them an hour to reach the place, although it was only about three miles off. They had forgotten what it was to have the sensation of weight in the limbs, having been accustomed to skim along like birds on the lunar globe. The Sun had risen above the horizon when our tired friends at length reached the side of a yellow, muddy river, and threw themselves down on its banks.
"It is certainly the Nile!" Norbert said. "There is no similar river in this region of the world. But I wonder what part of the Nile! I can't say with certainty where we are, the Nile being five hundred leagues in length. But I fancy we must be below Dongola."
"So do I," said the doctor.
"What gives you that idea ?" asked Norbert. "My own reasons for so thinking are purely based on scientific observations."
"Well," answered the doctor, "it is a striking fact, to my mind, that there should be no traces of sudd . . . here ; which term is given above Berber to the floating vegetation that there blocks up the river, forming little islets amid stream. They are quite characteristic of the Upper Nile, and sometimes so impede navigation that the passage has to be frayed through with scythe and hatchet. There is nothing of the kind here. There is every indication, then, that we must be above Berber," concluded the doctor.
"We shall not have long to wait in order to be certain about it!" exclaimed Gertrude, whose clearsighted eyes had just discerned a little black spot far down in the stream.
"Is not that a dahabieh?" she asked.
Every one looked in the direction she pointed to, and perceived, in truth, a tiny moving speck on the waters.
"Oh, the eyes of youth!" said her uncle. "I, for my part, can only see the blazing sunshine and the desert sand!"

The black spot grew momentarily, and before many
minutes Gertrude announced that it was a dahabieh, and, moreover, that it contained red coats.
"Red coats ?" said the baronet. "M May you be right! for if so, they are English soldiers!"
"Hurrah for old England!" shouted Tyrrel enthusiastically, subsiding after this one outburst into his usual British calm.
"If they are English soldiers," said Norbert, "we must be quite close to the Egyptian frontier, or else the relieving army expected by Gordon must be already ascending the Nile. In either case, we are sure to hear news of Khartoum!"
"Of Khartoum ?" echoed Gertrude, bursting into irrepressible tears. "Oh, my darling father! If I could only know all about you!"

The dahabieh came nearer and nearer. It was a long Egyptian boat, similar to the mural paintings extant to this day of the times of the Pharaohs ; it had a gondolalike prow, and a high cabin in the rear, and it was manned by twenty native rowers.

The cabin was occupied by a detachment of English soldiers, who were evidently engaged in a reconnaissance up the Nile, as they glanced sharply from right to left of the banks. On seeing our group making signs to him from the right bank, the commanding officer approached, and when within hearing distance, shouted,-
"Who are you? What are you doing there ?"
The baronet came to the water's edge to reply, but was suddenly struck by the apparent absurdity of what he was about to say.
"I can't possibly tell him we have descended from the Moon!" he murmured aside to his companions.
"Well!" impatiently shouted the officer, "are you going to answer ?"
"I am Sir Bucephalus Coghill, of 29, Curzon Street, London, and Wigmore Castle, in Devonshire," said the baronet. "These ladies and gentlemen are my friends. As to where we come from, that is another point, and I will take the liberty of keeping it to myself."
"Then what do you want with me?" said the officer, visibly annoyed.
"Simply that you would be so kind as to tell us where we are, and, if quite convenient, take us to your headquarters."
"Where you are? Why, near Ouadi-Halfa, of course," answered the officer, somewhat mollified by the courteous tone of the baronet, notwithstanding the decidedly suspicious appearance of the queer travellers. "As to taking you to headquarters," he continued, "I think it will be my duty to do so, even if you had not asked it! So I am quite prepared to accede to your request!"

He ran the dahabieh to a convenient spot for landing, and threw a plank across to make a bridge by which the travellers could embark. That done, the rowers proceeded rapidly down stream again.
"You belong, doubtless, to the reserve force ?" asked the baronet in an off-hand tone.
"What reserve force ?" answered the officer, somewhat haughtily, the appearance of our travellers at close quarters not being particularly calculated to reassure him as to their status.
"I allude," said Sir Bucephalus, "to the English army of relief expected by Gordon."
"I am not aware of the existence of such an army. We are a detached corps from Cairo of two hundred men, quartered at Assouan and Ouadi-Halfa." His suspicions gaining ground, the officer then resumed, looking severely at Sir Bucephalus: "Why do you question me? What concern is it of yours? Are you perchance an agent of the Mahdi? You look very like it, all of you self-styled travellers! Where do you come from, and where are your papers?"
"My papers ? I never had any," said the baronet, fumbling in his pocket. "But here is my card!"
"Humph! A visiting card. Not much to be learnt from that! However, you must answer for yourself at headquarters. It is your concern, not mine."

They were not long in reaching Ouadi-Halfa, a miserable,
overgrown village at the head of the first cataract. The English were engaged in fortifying it with a view to the tardy, disastrous expedition of a few months later.

The travellers were conducted under escort to the dilapidated old barrack that constituted headquarters, and were shut up for two long hours in a large room on the ground floor ; so that they had plenty of time to take counsel together. They all agreed with Sir Bucephalus that it would be impossible to own that they came from the Moon: and so, after much deliberation, they settled to waive this point, and just state the fact that, besieged by the Mahdist army, they had escaped in a balloon from the Peak of Tehbali. This would be a sufficient answer, and thus they would escape the probable annoyance of inconvenient questioning.

At about nine o'clock in the morning, a picket of soldiers came for the suspected spies. This was what Adjutant Brown had designated them when he made his report to his commanding officer, before whom they were now led.

Major Wharton was a brave soldier, and rigid disciplinarian, but he had one fault which is often found in commanders of outposts : he was too suspicious. It is true that Adjutant Brown had drawn up a highly-coloured report, dwelling especially on the shabby appearance of the little band whom, he said, he had found on the Nile banks, minus camels, boats, or escort of any kind ; not to speak of the torn garments of two among them (M. Mauny and Virgil, whose coats bore traces of the hand-to-hand struggle they were engaged in just before leaving the Moon) ; added to this, the evasive replies of the selfstyled English baronet were not calculated to disarm suspicion.

The major was therefore predisposed against the party, and received them most discourteously. He was seated with his secretary in an old lobby, furnished only with a table of white wood, two chairs, and a bench.
"Who are you, and whence come you ?" he abruptly asked the baronet, glaring at him with his large blue eyes as fiercely as he could.

The baronet began in a dignified, but somewhat hesitating manner, to give his preconcerted explanations. His friends and he had escaped from the Peak of Tehbali, where they had sustained a siege from the Mahdist army. They had escaped in a balloon which had descended three or four miles from the Nile.

The major soon cut short the rambling account, and interrupted him with,-
"The Peak of Tehbali! Where is that mountain? I never heard of it! It is not on the ordnance map!" he shouted in a voice like thunder. "A balloon, indeed! Where is your balloon ? You state that you were besieged by the Mahdist army. In the first place, there is no Mahdist army. There is only a rabble of rogues and thieves, a band of robbers who call themselves an army, whom we intend to hang right and left as soon as we can catch them. That you should speak of them as an army savours strongly of complicity with them, and I should not be surprised if, instead of undergoing a siege from them, you had ... Oh! I know all about it! Where are your papers ?"
"I never had any, but here is my card," murmured the baronet piteously.
"Your card! Fiddlesticks! Do you imagine I can take that as a guarantee? And your companions, have they any papers?"
"Sir," said Norbert impatiently, "we have no papers, because we could only take necessaries in the car. But we are respectable people, and you and your Government will, I warn you, be held responsible for any arbitrary detention of French subjects. That lady is the daughter of Monsieur Kersain, the French consul at Khartoum."
"Indeed!" replied the major ironically. I am most charmed to learn that Mademoiselle is the daughter of Monsieur Kersain, the French consul at Khartoum."

Calling the subaltern in command of the picket, he gave him an order in a low voice, which was immediately obeyed with the intelligent promptitude so characteristic of the British soldier.
"I am most charmed to learn who Mademoiselle is," repeated the major; "and," he continued, trying to look severe, but succeeding only in looking comical, "whom may you be ?"
"I am M. Mauny, astronomer at the Observatory of Paris. This gentleman is Doctor Briet, famed for his African explorations, and for his botanical researches. This is my servant. That other is the valet de chambre of Sir Bucephalus, and like his master, English. This young girl is in the service of Mademoiselle Kersain."
"Do you persist in stating that Mademoiselle is the daughter of Monsieur Kersain, the French consul at Khartoum ?"
"Certainly."
"Well, then, your impudent lie shall be put to the test!" cried the major, as steps were heard on the stairs. "Here is Monsieur Kersain himself!"

Every one turned to the door.
It was, indeed, M. Kersain in person, who had come in response to the message sent him by the major.
"My father! My darling father !" cried Gertrude, flying into his arms, and sobbing with surprise and joy.

## CHAPTER XXXV.

## MUTUAL EXPLANATIONS.

M. Kersian was no less surprised and delighted than his daughter.
"Gertrude! my beloved child!" he exclaimed, pressing her to his heart, and stroking her beautiful hair: "you here, my pet? How does it come about that we meet thus? I was thinking of you a minute ago, but little did I expect to see you this morning!"
"But how is it, my dear Kersain," said the doctor, "that you are at Ouadi-Halfa ?"
"General Gordon," replied M. Kersain, "had requested
me to do him the service of descending the Nile in one of the steam gunboats he was sending down, and proceed to Europe for the purpose of letting the civilized world know how he was situated. I could not refuse such a commission, and, moreover, I perceived that it was the only chance of putting an end to the blockade of Tehbali, where I knew you had been besieged. But I can't tell you how terribly anxious I have felt about you all!"

Here Major Wharton, whose countenance had suddenly lost its severity, now interposed courteously with, "Dear Monsieur Kersain, I see that you will answer for these gentlemen. I pray them to excuse the misconception which led to their being taken for other than what they are. I shall be delighted if they and Mademoiselle, your daughter, will honour me with their company at breakfast."

The prisoners bowed their acknowledgments. But a scapegoat was necessary to the major, and he found him in the subaltern.
"Adjutant Brown," he said, "is ordered under arrest for fifteen days, for arbitrary interference, and inexact reports."

As is often the case, Gertrude had quite broken down now that the necessity for courage was past. She clasped her arm round her father's neck, and hiding her face on his shoulder, wept copiously, the recollections of the terrible month she had passed depriving her of the power of speech.
M. Kersain attributed her emotion solely to the dangers he had himself sustained, and said soothing ly,-
"Don't cry any more, my darling. We are together again now for ever!"
"Oh! yes, I will never leave you again, dear papa," she murmured, pressing closely to him. "Never! Never!"
"Never, pet!" he repeated tenderly. "It was too painful to bear as it was! Tell me how it comes about that your uncle and yourself are here."
"You will be able to talk better in my little room," courteously said the major, opening the door of his private
sitting-room for them. The other travellers remained in the common room. M. Kersain was so taken up with the joy of meeting Gertrude, that he failed to perceive the presence of Norbert and the baronet. Alone with her father, she mastered her emotion at last, and, heaving a deep sigh, clasped her hands on her father's shoulder.
"If you only knew, dear papa," she said, "all that I have gone through, you would scarcely credit all I have to tell you, and indeed at times, I myself even wonder whether it is not all a dream. Yet it is perfectly true. Uncle, Monsieur Mauny, Sir Bucephalus, Fatima, Virgil and Tyrrel, will all bear out my statement that it is no illusion; we have just come from spending twenty-nine days in the Moon!"
"In the Moon!" exclaimed her father, with a terrible misgiving lest Gertrude should have lost her reason. "What are you saying, darling ?"
"Oh! of course you find it difficult to believe me. But I assure you, darling papa, that I have not lost my senses, as you seem to think. . . . You knew all about M. Mauny's plans, did you not? . . . Well, he has carried them into execution, that is all! . . . We have spent nearly all the time on the Moon!"
"No doubt about it!" murmured her horrified father to himself. "The agony of our separation has turned my child's head! . . . She is in a delirium, and is raving about old familiar subjects! My darling Gertrude," he continued aloud, whilst striving to hide the tears that sprang to his eyes, "do you mean to tell me that M. Mauny and Sir Bucephalus are with your uncle ?"
"Yes, papa; they have never left us. I made the wonderful journey in their company, and we all came down together this very night."
M. Kersain could no longer bear his terrible suspicion. He rushed to the door, pale and haggard-eyed, resolved to end the suspense.
"M. Mauny," he cried in a hoarse voice, "are you there ?"
"Yes, consul," answered Norbert, hastening to meet
him. He also was pale, and visibly much moved by some inward emotion. "Will you ever forgive me?" he said, as he pressed M. Kersain's outstretched hand.
"For what?" asked the unhappy father.
"For having exposed Mademoiselle Kersain to all the perils of such an expedition! She will have told you that it was quite involuntary on my part, and that events took an unexpected course. We found ourselves in the Moon quite without any premeditation!"
"What?" cried the consul. "You, also? . . . Has every one lost his senses? Briet! Sir Bucephalus!" . . .

The doctor and the baronet hurried up.
"What is the meaning of this frightful delusion ?" said M. Kersain, closing the door.
"What delusion?"
"My daughter and M. Mauny pretend that you . . . that you all come from the Moon," stammered the agitated consul.
"Well, that is the exact truth!" replied the doctor, smiling.
"It is the sad truth, which will cost me thirty thousand pounds!" added Sir Bucephalus, in a less joyful tone.
"How? Do you mean to maintain, with Gertrude and M. Mauny, that" .
". . . That we all started for the Moon, stayed there one month, and came down again just now! That is the sober fact, my dear brother-in-law. And if you want a proof, I will show you the superb geological specimens I brought back from the Moon," he added, fumbling in his capacious coat-pockets. "Good gracious! I must have left them behind on the table in my room. . . . I have no head for anything!'" he cried ; but added immediately, "Never mind ; I can show you my Selenic papyrus, luckily!"

This he took out of his pocket-book, and held it out triumphantly to M. Kersain, who, in truth, did not know what to make of four such positive assertions, and ended by believing in all the proofs and details he heard, espe-
cially since Fatima, Virgil, and Tyrrel confirmed the statements of the others.
"Shall I give you a piece of advice?" he said, when at length he was convinced. "Keep all this to yourself, and tell no one, unless you are certain you will be believed. Otherwise you will be taken for charlatans or fools."
"We know that ; and this very morning," answered the doctor, "we ran a risk of being arrested on account of our reticence. As it was, we cut a sorry figure before the major. But patience! .. . It will all be proved in time!"

Each one then related his adventures since they parted. Gertrude told her father all about the wonderful journey ; and he, in return, detailed the news of Gordon and Khartoum.
"The Mahdist bands," he began, " must have cut or interrupted the telegraph-wires as soon as the town was invested, for the messages that reached us afterwards left no doubt as to their origin. The general had thrown up numerous earthworks, and raised fifty or more batteries to guard against a surprise. Day and night he was occupied with the discipline and well-being of his troops, constantly reviewing them. In a few weeks' time the good results of this wise surveillance were most evident. But all his efforts were foredoomed to failure if no army of relief came, for without this assistance the fall of Khartoum could only be a question of time. The English Government were so dilatory about the matter, notwithstanding his repeated earnest representations, that General Gordon took the only course left to him--he resolved to appeal to the whole of the civilized world, whose interest it might be not to permit the Soudan to fall into the hands of the Mahdi, and he asked me to undertake the commission. I could do it, because my own plans of five or six months previous were necessarily in abeyance, in consequence of the complete investment of the town. It was my duty to do it, because the General's plan was, unhappily, the only chance of protection for the fifteen or sixteen hundred Europeans at Khartoum, without counting the Egyptian troops. So, therefore, I felt honoured in accepting the
brave hero's commission, which has not, moreover, been without its dangers so far, for, before reaching the English lines, our gunboat was fired at not less than seventeen times between the confluence of the two Niles and Dongola. However, we have arrived here safely, thank God! I must now press on to Paris, as I promised Gordon, and make an appeal through the press to all the friends of civilization, that some concerted plan of action may be arranged!"
"Do you think, doctor," added M. Kersain, after he had told his story, "that Gertrude could accompany me without fear for her health ? Summer is at hand."
"Gertrude might now go to Lapland if she likes!" cried the doctor. "Do you not see what roses she has in her cheeks, and how greatly she has changed for the better? I never saw such an astonishing cure. It would seem as if the pure, refined, dry atmosphere of the Moon was made for her. By the time we had reached the crater of Rheticus, she had become so strong, that she was able to bear with ease the more than Siberian cold of the long lunar night. Gertrude may henceforth go where she likes, and there is not the slightest cause now for any anxiety about her. This is one of the most curious results of our strange journey."
"In point of fact," answered her delighted father, "I did notice that she seemed extraordinarily well. But may I really look upon it as a radical cure, and take it for granted that damp or cold climates will not in future be bad for her?"
"I tell you that the cure is beyond the shadow of a doubt," replied the doctor. "It has so amazed me, that it would not take much to induce me to carry out a project I have in my head."
"What is it?"
"To establish a model hospital on the Moon, as a kind of supplementary winter sanatorium !"
"Be quiet! Don't say any more about the Moon; you know it is to be a reserved subject for the present!" said M. Kersain, hearing the major's footsteps outside.

The gallant officer came to invite them to take their seats at his breakfast-table. He was evidently bent on effacing the recollection of his previous roughness by the exceeding courtesy of his present demeanour. He insisted on sending a fatigue party to fetch the parachute and the travellers' luggage from the place of descent, which they indicated to him as minutely as they could. But when the English soldiers arrived at the spot, there was not a trace of luggage or parachute. The Arab brigands had passed by, beyond a doubt, and after several hours of vain research the fatigue party returned empty handed, which so incensed the choleric major that he inflicted unjust punishment on several of his men.

At sunset, M. Kersain proposed to resume his journey towards Cairo, and as the gunboat that had brought him so far was under orders to return to Khartoum if possible, a nuggha, or flat boat, sometimes rowed, and at other times drawn along by beasts of burden, was hired to take him first to Assouan, and thence in the direction of the Egyptian Delta. Of course Gertrude and Fatima, M. Mauny and Virgil, the baronet and Tyrrel, and Doctor Briet, all accompanied him.

A voyage in a muggha may not in itself be the pleasantest way of progression, but with agreeable society it is not so bad after all, especially if one has taken precautions against the extortions of the boatmen and river populations.

Major Wharton supplied his guests with all necessaries, and furnished them with a military escort, and free passes enough to take them anywhere. Our party descended the Nile therefore pretty rapidly, and were as jovial as might be expected of friends who found themselves together once again after undergoing tragic trials and dangers.

One evening after their arrival at Cairo, Norbert was on deck with M. Kersain and Gertrude. It was a soft, starry night. No sound was to be heard except the rhythmical cadence of the oars, and the monotonous chant of the rowers on the broad expanse of the river, that stretched
away across the plain until lost to sight in the distance. The Moon had just risen in the east, and she seemed to look down tenderly on the audacious pioneer of science who had but so lately dared to snatch her from her siesta of centuries.

But he, so brave in the face of catastrophe, now hesitated before a single word, a word which he had longed to say ever since he left Khartoum. Now was his opportunity, and Gertrude and her father both waited for him to speak out. At last, summoning up his courage, Norbert murmured in a voice full of emotion, -
"Consul, two months ago I asked you to give me your daughter. You were so good as to consent, provided I could find favour in her eyes. Mademoiseile Gertrude knows me better now than she did then. We have passed two months together, through trials that test character unmistakably. I, for my part, have formed, if possible, a far higher estimate than before of her courage, her intelligence, her heart, and may I venture to say, of her graciousness to myself. I must now ask in my turn whether I may not hope that she will one day make me happy ?"
"If you had asked it sooner, my dear fellow," replied M. Kersain affectionately, "you would have been out of suspense now. Know, then, that Gertrude loves you as much as she admires you, and she thinks, with me, that you will make the best of husbands, just as you are the bravest, the most generous, and the most loyal of men."

So saying, M. Kersain put Gertrude's hand in that of Norbert, and pressed them both to his fatherly heart.

## CHAPTER XXXVI.

## AVENUE DE L'OBSERVATOIRE.

Nearly a year had passed. It was now February. The gas was just being lighted in the streets of Paris one evening, as a cabriolet set Doctor Briet down at the door


Kersain pressed them both to his fatherly heart.
of a house in the Avenue de l'Observatoire. Quickly mounting two flights of stairs, he was respectfully welcomed on the landing by the correctest of valets de chambre, who was no other than our old friend the Algerian sharpshooter Virgil, now faultlessly attired in a sober livery of black, without a trace of chechia left about him.
"They are all there, sir," he said, ushering the doctor into an elegant drawing-room in which sat M. Kersain reading the paper by the fire, while Madame Mauny worked by the lamp-light, and Norbert walked about the room, lost apparently in a day-dream.
"What do you think they have the audacity to say ?" exclaimed Doctor Briet, as he rushed into the room. "That my Selenic papyrus is nothing more than Ethiopian papyrus!"
"Who says so ?" asked Norbert and Gertrude, with one accord.
"The Academy of Inscriptions, forsooth! . . It appears that the ancient kings of Ethiopia were in the habit of writing their decrees on amianthus leaves, and, strange to say, they were also accustomed to express their ideas by idiographic drawings. These are held to be conclusive proofs, and I was almost treated like an impostor when I persisted that I had brought the document from the Moon."
"What about us, then ?" cried Gertrude. "We are no better treated, for the Observatoire will not believe a word Norbert says. They declare that they must have seen it if the Moon really descended twice into our orbit! Now it is quite certain that at that very time the sky was so overcast for several days that all astronomical observations were impossible. It is equally certain that these clouds were due to the near approach of the Moon, and also that there were tremendous storms, and exceedingly high tides everywhere during those few days, that were equally unexpected and inexplicable! . . . No matter! They won't accept the only possible and simple solution which we offer them, but persist in treating all we say about the journey as purely imaginary !"

Still fresh from his own fight with the Académie, her uncle listened to her eagerly.
"I know" he said, "that they all look upon our journey as a fiction of the imagination! But this is something still more exasperating, and enough to make any man angry! The idea that they should dare to insist that the Selenic document which you saw me take from the hand of a lunar Titan is nothing more than an Egyptian papyrus! Perhaps you don't understand how monstrous it is. It beats the disputes of the astronomers, for, after all, astronomy is an exact science, and one can understand, strictly speaking, that a professor might hesitate to believe in a phenomenon that he has not seen with his own eyes. Oh! you needn't laugh ; if I were an astronomer, I know I should be very much on my guard, and should think twice before believing any one who said, 'I come from the Moon!' But it is quite another matter with regard to epigraphy. How on earth could one confound a Selenic document, which of its kind is absolutely unique, with such a vulgar, common, well-known thing as an Ethiopian papyrus?"
"Well! well! uncle," said Madame Mauny, laughing heartily, "we ought not to be surprised at anything, when those who ought to be the first to believe us are just as incredulous as the rest!"
"My daughter means me, I know," cried M. Kersain, throwing down his newspaper. "I really must own that although at first I was inclined to believe your story, I could not help seeing its absurdity on reflection, and I cannot but think you were simply the victims of a delusion."
"Yes!". said the doctor disdainfully; "an illusion that seemingly came upon seven or eight or eleven persons simultaneously!!!"
"Why not?"
"I understand what you mean. You are going to treat us to the theory of Marotte, the doctor of the lunatic asylum, who maintains that we are under an hallucination! We left Khartoum just when it was surrounded
by the Mahdi's troops. We fell into his hands, were so cruelly treated that it turned our heads, and all seven, by a strange contagion, adopted Mauny's delusion, he having long had a mania for marvels! It all sounds very pretty! But I must inform you that Marotte himself is suspected of having 'a bee in his bonnet.' This is not the first time we have heard of his theory. He served it up to us after the events of $1870-7 \mathrm{I}$. He is quite ready to ascribe all the facts of history, ancient, modern, or contemporaneous, to a succession of hallucinations. Do you want to know my honest opinion about it all ? It is that Marotte himself is the deluded one! He ought to be shut up instead of having the care of others !"
"There is no need for all this heat, my dear Briet, for $I$ have no faith in Marotte's theory. I have one of my own."
"Let us hear your theory, O most sapient consul!"
"My theory is that you are in perfect good faith, and not at all mad."
"That's something in our favour at all events, and I bet you that the five classes of the Institute would not say as much for us!"
"You are in perfect good faith, and not at all mad," repeated M. Kersain. "Only". . . .
"Ah! let us know the only." . . .
"Only you fell into the hands of that accursed dwarf of Rhadameh, the greatest charlatan and most cunning magician on the face of the Earth. He, knowing the project that had brought Monsieur Mauny to the Soudan, and knowing how more or less you were all bitten with the same mania, amused himself, for some unknown end of his own, in making you believe that it had happened."
"And how did he manage that, pray ?"
"Something after this fashion. He hypnotized you, and then suggested this story to you. Or else he recounted it to you after placing you under the influence of haschish or some other drug."
"So that according to you, we are all simply sleepwalkers, like the people in the Thousand-and-one nights ?"
"Simply."
"Well! how about my Selenic document, then ?" cried the doctor triumphantly; "did I dream that too ?"
"No. But that may be merely an accessory, made use of by the dwarf to confirm you in your illusions. It follows that the Académie des Inscriptions was not quite blind in ascribing your document to an Ethiopian source."
"Have you said all you have to say?" asked the doctor, somewhat piqued by the last remark.
"All."
"Then," resumed the doctor, rising, and walking straight on M. Kersain, as if he intended to crush him by the force of his argument,-"then be so good as to explain to me how it happens that Virgil and the baronet, and his servant, who were not with us when we fell into the hands of Kaddour, are all under the same delusion."
"Just simply because when the dwarf made you prisoners, he took possession of the Peak of Tehbali, where he found Virgil and the baronet, and his faithful Tyrrel. It was easy for him to subject them to the same treatment as yourselves."
"But what about the parachute?"
" No trace of it can be found."
The doctor took two or three turns in the drawingroom, nursing his wrath ; then standing still again in front of his brother-in-law, he exclaimed, -
"It is of no use arguing with you. . . . But if I had not left my geological specimens on the table in my room, at present on the Moon, you would soon see!"
"The specimens prove no more than the papyrus," said Norbert laughing, "they have a great analogy with terrestrial rocks."
"Well! so you have gone over to the enemy!" cried the doctor. "That puts the finishing touch to the destruction of our case!"
"I have not given it up at all," answered Norbert merrily. "I am only trying to sift and understand our opponents' arguments. I don't mind their opposition a bit, for before very long I shall be able to silence them
with the irrefragable proof drawn from my lunar observations. For the present I am quite satisfied with the confidence of my shareholders, which is very touching under the circumstances."
"How? Do they believe in our journey, then?"
"If they didn't, I should no longer be able to term them actual shareholders!" answered Norbert laughing ; " but as they gave their money tofforward our experiment, they are quite willing to accept the latter in its entirety, such as it was. They have moreover formally congratulated me, and have unanimously voted funds to reconstitute the original capital, and enable us to resume operations whenever it shall be feasible."
"Well, if you ever go to the Moon again, let me be of the party!" cried the doctor. "I really must succeed in proving"
"Alas!" replied Norbert. "I fear it will not be an easy matter for a long time to come. Besides the fact that it will not be easy to find a mountain as rich in magnetic pyrite as the Peak of Tehbali, I fear it will be still more difficult to come across a country containing in itself all the conditions of success, like the Soudan. It will be long before that land will be open to Europeans again. . . ."
"Look here," said M. Kersain, "I wish we could all agree not to mention this subject again. It will end by spoiling our tempers, and upsetting us altogether. One would really think we had nothing else to talk about. Even that little Fatima cannot open her mouth without constantly saying, 'When I was in the Moon. . ..' She and Virgil have never finished talking of their so-called lunar experiences!..."
"Only one word more," cried the doctor. "Have you any recent news of Sir Bucephalus?"
"Yes! most excellent news. He is hoping to come to Paris soon for a fortnight. Do you know what has happened to him in connexion with the lunar expedition ? He had bet thirty thousand pounds that I should not succeed in getting on the Moon. On his recent arrival in London, therefore, he most honourably sent that sum to
his adversary, who refused to take it on the pretext that he had not fairly won it. The baronet persisted in offering it, but the other man would not yield. They ended by calling in arbitrators, who settled that the money should be devoted to building a hospital. Sir Bucephalus wished it to be called 'Luna Hospital,' in honour of his travels. But the name was not liked, and the public dubbed it instead, 'Hospital of Lunatics !'"
"Good Heavens! What dreadful news!" here exclaimed M. Kersain, who had taken refuge behind his newspaper from the everlasting discussion.

His eyes had just lighted on the latest intelligence, "Fall of Khartoum! General Gordon killed! Arrival of the army of relief commanded by General Wolseley!... Too late! The town in the power of the Mahdi!!"
"How terrible!" said they all.
"It was only to be expected," said M. Kersain sadly. "You know the heartless indifference with which the civilized nations of Europe met my appeal for Gordon. The English Government were divided between the sense of their heavy responsibility in the matter, and the inadvisability of undertaking an enterprise of which they could not foretell the probable issue. They reluctantly decided at length to send an army of relief, but it arrived too late!... Poor heroic Gordon had perished! He was indeed a-brave hero!... He had, as he told me, long given up all hope of help from home!"

Our friends were still sorrowfully musing over the sad intelligence, when Virgil threw open the door, and announced that dinner was ready. The tragic fate of Gordon faded away gradually in the pleasant intimacy of their family party ; and it was well, for life would be too embittered were we always overshadowed by the memory of past grief, be it public or private. ...
At the same time that these events were passing in Paris, a merry group of butlers and footmen were assembled in the private bar of a public-house in Curzon Street. The hero of this most exclusive little club was no other than our old friend Tyrrel Smith.

Once more by his own fireside, on the free soil of Old England, he told his wonderful tales to an admiring audience, in whose eyes Smith was now quite a second Sinbad the Sailor.

His friends, unlike M. Kersain, were never tired of hearing about the journey to the Moon. It was the favourite topic at the club.
" Go to!" they would say to him ; "perhaps you will try to make us believe next that there were men in the Moon!"
"So there were! My word for it! Fine men too! They were nearly as tall as the column in Trafalgar Square."
"Bravo! bravo! you are cramming us!"
"It is all quite true."
"Well you did not much enjoy being on the Moon, it seems?"
"Good heavens, no! only think! one could not even smoke a pipe there. Not one pipe, on my honour! There was no walking about like respectable people. One had to get over the ground like grasshoppers, with great leaps of ten or twelve yards, or more. . . . You can imagine what sort of a figure a man cut.
"And everything elsewhere after an outlandish fashion! In the most bitter cold that ever froze a poor devil of a Cossack, we had to put up with a miserable apology for a fire. Our tea was heated only by the Sun ; you can imagine what sort of stuff it was to drink. Then as to the night-it was no joke, I can tell you. Our weeks of fog here are nothing to it. Fourteen times twenty-four hours of darkness, with a kind of big Moon, the Earth Light, they called it ; just as if the Earth is ever light during the night!
"When one has gone through all that, my friends, one isn't long before coming to the conclusion that there is nothing like a good glass of ale with one's chums in London, and the whole Moon together is not worth a square foot of earth in merry England! Hurrah for Old England!"
"Hurrah for Old England!" shouted all his hearers in chorus.

But when Tyrrel left a few minutes later, saying it was near the time for his master's evening toilette, the members of the club unanimously shook their heads sorrowfully, while an old valet de chambre, slowly lighting a pipe, and making himself the spokesman for the rest, broke the silence by touching his forehead significantly, as he said,-
"The poor fellow has 'rats in his garrets.'"

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[^0]:    ${ }^{1}$ Heat unit.-The amount of heat necessary to raise to the extent of one degree centigrade the temperature of a litre of water.

[^1]:    ${ }^{1}$ See Gordon's Letters to his Sister.

[^2]:    ${ }^{1}$ This is a frequent feat of Hindoo conjurors, as we know from the recent letters of Haekel, the naturalist, and from the testimony of Doctor Sierke, of Vienna, Doctor Preyer, and many other distinguished travellers.

