Off on a Comet

By

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OFF ON A COMET OR HECTOR SERVADAC

BOOK I.

CHAPTER I. A CHALLENGE

"Nothing, sir, can induce me to surrender my claim."

"I am sorry, count, but in such a matter your views cannot modify mine."

"But allow me to point out that my seniority unquestionably gives me a prior right."

"Mere seniority, I assert, in an affair of this kind, cannot possibly

entitle you to any prior claim whatever."

"Then, captain, no alternative is left but for me to compel you to yield at the sword's point."

"As you please, count; but neither sword nor pistol can force me to forego my pretensions. Here is my card."

"And mine."

This rapid altercation was thus brought to an end by the formal interchange of the names of the disputants. On one of the cards was inscribed:

Captain Hector Servadac,

Staff Officer, Mostaganem.

On the other was the title:

Count Wassili Timascheff,

On board the Schooner "Dobryna."

It did not take long to arrange that seconds should be appointed, who would meet in Mostaganem at two o'clock that day; and the captain and

the count were on the point of parting from each other, with a salute of punctilious courtesy, when Timascheff, as if struck by a sudden thought, said abruptly: "Perhaps it would be better, captain, not to allow the real cause of this to transpire?"

"Far better," replied Servadac; "it is undesirable in every way for any names to be mentioned."

"In that case, however," continued the count, "it will be necessary to assign an ostensible pretext of some kind. Shall we allege a musical dispute? a contention in which I feel bound to defend Wagner, while you are the zealous champion of Rossini?"

"I am quite content," answered Servadac, with a smile; and with another low bow they parted.

The scene, as here depicted, took place upon the extremity of a little cape on the Algerian coast, between Mostaganem and Tenes, about two miles from the mouth of the Shelif. The headland rose more than sixty feet above the sea-level, and the azure waters of the Mediterranean, as they softly kissed the strand, were tinged with the reddish hue of the ferriferous rocks that formed its base. It was the 31st of December. The noontide sun, which usually illuminated the various projections of the coast with a dazzling brightness, was hidden by a dense mass of cloud,

and the fog, which for some unaccountable cause, had hung for the last two months over nearly every region in the world, causing serious interruption to traffic between continent and continent, spread its dreary veil across land and sea.

After taking leave of the staff-officer, Count Wassili Timascheff wended his way down to a small creek, and took his seat in the stern of a light four-oar that had been awaiting his return; this was immediately pushed off from shore, and was soon alongside a pleasure-yacht, that was lying to, not many cable lengths away.

At a sign from Servadac, an orderly, who had been standing at a respectful distance, led forward a magnificent Arabian horse; the captain vaulted into the saddle, and followed by his attendant, well mounted as himself, started off towards Mostaganem. It was half-past twelve when the two riders crossed the bridge that had been recently erected over the Shelif, and a quarter of an hour later their steeds, flecked with foam, dashed through the Mascara Gate, which was one of five entrances opened in the embattled wall that encircled the town.

At that date, Mostaganem contained about fifteen thousand inhabitants, three thousand of whom were French. Besides being one of the principal district towns of the province of Oran, it was also a military station. Mostaganem rejoiced in a well-sheltered harbor, which enabled her to

utilize all the rich products of the Mina and the Lower Shelif. It was the existence of so good a harbor amidst the exposed cliffs of this coast that had induced the owner of the Dobryna to winter in these parts, and for two months the Russian standard had been seen floating from her yard, whilst on her mast-head was hoisted the pennant of the French Yacht Club, with the distinctive letters M. C. W. T., the initials of Count Timascheff.

Having entered the town, Captain Servadac made his way towards Matmore, the military quarter, and was not long in finding two friends on whom he might rely--a major of the 2nd Fusileers, and a captain of the 8th Artillery. The two officers listened gravely enough to Servadac's request that they would act as his seconds in an affair of honor, but could not resist a smile on hearing that the dispute between him and the count had originated in a musical discussion. Surely, they suggested, the matter might be easily arranged; a few slight concessions on either side, and all might be amicably adjusted. But no representations on their part were of any avail. Hector Servadac was inflexible.

"No concession is possible," he replied, resolutely. "Rossini has been deeply injured, and I cannot suffer the injury to be unavenged. Wagner is a fool. I shall keep my word. I am quite firm."

"Be it so, then," replied one of the officers; "and after all, you know,

a sword-cut need not be a very serious affair."

"Certainly not," rejoined Servadac; "and especially in my case, when I have not the slightest intention of being wounded at all."

Incredulous as they naturally were as to the assigned cause of the quarrel, Servadac's friends had no alternative but to accept his explanation, and without farther parley they started for the staff office, where, at two o'clock precisely, they were to meet the seconds of Count Timascheff. Two hours later they had returned. All the preliminaries had been arranged; the count, who like many Russians abroad was an aide-de-camp of the Czar, had of course proposed swords as the most appropriate weapons, and the duel was to take place on the following morning, the first of January, at nine o'clock, upon the cliff at a spot about a mile and a half from the mouth of the Shelif. With the assurance that they would not fail to keep their appointment with military punctuality, the two officers cordially wrung their friend's hand and retired to the Zulma Cafe for a game at piquet. Captain Servadac at once retraced his steps and left the town.

For the last fortnight Servadac had not been occupying his proper lodgings in the military quarters; having been appointed to make a local levy, he had been living in a gourbi, or native hut, on the Mostaganem coast, between four and five miles from the Shelif. His orderly was his

sole companion, and by any other man than the captain the enforced exile would have been esteemed little short of a severe penance.

On his way to the gourbi, his mental occupation was a very laborious effort to put together what he was pleased to call a rondo, upon a model of versification all but obsolete. This rondo, it is unnecessary to conceal, was to be an ode addressed to a young widow by whom he had been captivated, and whom he was anxious to marry, and the tenor of his muse was intended to prove that when once a man has found an object in all respects worthy of his affections, he should love her "in all simplicity." Whether the aphorism were universally true was not very material to the gallant captain, whose sole ambition at present was to construct a roundelay of which this should be the prevailing sentiment. He indulged the fancy that he might succeed in producing a composition which would have a fine effect here in Algeria, where poetry in that form was all but unknown.

"I know well enough," he said repeatedly to himself, "what I want to say. I want to tell her that I love her sincerely, and wish to marry her; but, confound it! the words won't rhyme. Plague on it! Does nothing rhyme with 'simplicity'? Ah! I have it now:

'Lovers should, whoe'er they be,
Love in all simplicity.'

But what next? how am I to go on? I say, Ben Zoof," he called aloud to his orderly, who was trotting silently close in his rear, "did you ever compose any poetry?"

"No, captain," answered the man promptly: "I have never made any verses, but I have seen them made fast enough at a booth during the fete of Montmartre."

"Can you remember them?"

"Remember them! to be sure I can. This is the way they began:

'Come in! come in! you'll not repent
The entrance money you have spent;
The wondrous mirror in this place
Reveals your future sweetheart's face.'"

"Bosh!" cried Servadac in disgust; "your verses are detestable trash."

"As good as any others, captain, squeaked through a reed pipe."

"Hold your tongue, man," said Servadac peremptorily; "I have made another couplet.

'Lovers should, whoe'er they be,
Love in all simplicity;
Lover, loving honestly,
Offer I myself to thee.'"

Beyond this, however, the captain's poetical genius was impotent to carry him; his farther efforts were unavailing, and when at six o'clock he reached the gourbi, the four lines still remained the limit of his composition.

CHAPTER II. CAPTAIN SERVADAC AND HIS ORDERLY

At the time of which I write, there might be seen in the registers of the Minister of War the following entry:

SERVADAC (Hector), born at St. Trelody in the district of Lesparre, department of the Gironde, July 19th, 18--.

Property: 1200 francs in rentes.

Length of service: Fourteen years, three months, and five days.

Service: Two years at school at St. Cyr; two years at L'Ecole d'Application; two years in the 8th Regiment of the Line; two years in the 3rd Light Cavalry; seven years in Algeria.

Campaigns: Soudan and Japan.

Rank: Captain on the staff at Mostaganem.

Decorations: Chevalier of the Legion of Honor, March 13th, 18--.

Hector Servadac was thirty years of age, an orphan without lineage and

almost without means. Thirsting for glory rather than for gold, slightly scatter-brained, but warm-hearted, generous, and brave, he was eminently formed to be the protege of the god of battles.

For the first year and a half of his existence he had been the foster-child of the sturdy wife of a vine-dresser of Medoc--a lineal descendant of the heroes of ancient prowess; in a word, he was one of those individuals whom nature seems to have predestined for remarkable things, and around whose cradle have hovered the fairy godmothers of adventure and good luck.

In appearance Hector Servadac was quite the type of an officer; he was rather more than five feet six inches high, slim and graceful, with dark curling hair and mustaches, well-formed hands and feet, and a clear blue eye. He seemed born to please without being conscious of the power he possessed. It must be owned, and no one was more ready to confess it than himself, that his literary attainments were by no means of a high order. "We don't spin tops" is a favorite saying amongst artillery officers, indicating that they do not shirk their duty by frivolous pursuits; but it must be confessed that Servadac, being naturally idle, was very much given to "spinning tops." His good abilities, however, and his ready intelligence had carried him successfully through the curriculum of his early career. He was a good draughtsman, an excellent rider--having thoroughly mastered the successor to the famous "Uncle

Tom" at the riding-school of St. Cyr--and in the records of his military service his name had several times been included in the order of the day.

The following episode may suffice, in a certain degree, to illustrate his character. Once, in action, he was leading a detachment of infantry through an intrenchment. They came to a place where the side-work of the trench had been so riddled by shell that a portion of it had actually fallen in, leaving an aperture quite unsheltered from the grape-shot that was pouring in thick and fast. The men hesitated. In an instant Servadac mounted the side-work, laid himself down in the gap, and thus filling up the breach by his own body, shouted, "March on!"

And through a storm of shot, not one of which touched the prostrate officer, the troop passed in safety.

Since leaving the military college, Servadac, with the exception of his two campaigns in the Soudan and Japan, had been always stationed in Algeria. He had now a staff appointment at Mostaganem, and had lately been entrusted with some topographical work on the coast between Tenes and the Shelif. It was a matter of little consequence to him that the gourbi, in which of necessity he was quartered, was uncomfortable and ill-contrived; he loved the open air, and the independence of his life suited him well. Sometimes he would wander on foot upon the sandy shore,

and sometimes he would enjoy a ride along the summit of the cliff; altogether being in no hurry at all to bring his task to an end. His occupation, moreover, was not so engrossing but that he could find leisure for taking a short railway journey once or twice a week; so that he was ever and again putting in an appearance at the general's receptions at Oran, and at the fetes given by the governor at Algiers.

It was on one of these occasions that he had first met Madame de L----, the lady to whom he was desirous of dedicating the rondo, the first four lines of which had just seen the light. She was a colonel's widow, young and handsome, very reserved, not to say haughty in her manner, and either indifferent or impervious to the admiration which she inspired. Captain Servadac had not yet ventured to declare his attachment; of rivals he was well aware he had not a few, and amongst these not the least formidable was the Russian Count Timascheff. And although the young widow was all unconscious of the share she had in the matter, it was she, and she alone, who was the cause of the challenge just given and accepted by her two ardent admirers.

During his residence in the gourbi, Hector Servadac's sole companion was his orderly, Ben Zoof. Ben Zoof was devoted, body and soul, to his superior officer. His own personal ambition was so entirely absorbed in his master's welfare, that it is certain no offer of promotion--even had it been that of aide-de-camp to the Governor-General of Algiers--would

have induced him to quit that master's service. His name might seem to imply that he was a native of Algeria; but such was by no means the case. His true name was Laurent; he was a native of Montmartre in Paris, and how or why he had obtained his patronymic was one of those anomalies which the most sagacious of etymologists would find it hard to explain.

Born on the hill of Montmartre, between the Solferino tower and the mill of La Galette, Ben Zoof had ever possessed the most unreserved admiration for his birthplace; and to his eyes the heights and district of Montmartre represented an epitome of all the wonders of the world. In all his travels, and these had been not a few, he had never beheld scenery which could compete with that of his native home. No cathedral--not even Burgos itself--could vie with the church at Montmartre. Its race-course could well hold its own against that at Pentelique; its reservoir would throw the Mediterranean into the shade; its forests had flourished long before the invasion of the Celts; and its very mill produced no ordinary flour, but provided material for cakes of world-wide renown. To crown all, Montmartre boasted a mountain--a veritable mountain; envious tongues indeed might pronounce it little more than a hill; but Ben Zoof would have allowed himself to be hewn in pieces rather than admit that it was anything less than fifteen thousand feet in height.

Ben Zoof's most ambitious desire was to induce the captain to go with

him and end his days in his much-loved home, and so incessantly were Servadac's ears besieged with descriptions of the unparalleled beauties and advantages of this eighteenth arrondissement of Paris, that he could scarcely hear the name of Montmartre without a conscious thrill of aversion. Ben Zoof, however, did not despair of ultimately converting the captain, and meanwhile had resolved never to leave him. When a private in the 8th Cavalry, he had been on the point of quitting the army at twenty-eight years of age, but unexpectedly he had been appointed orderly to Captain Servadac. Side by side they fought in two campaigns. Servadac had saved Ben Zoof's life in Japan; Ben Zoof had rendered his master a like service in the Soudan. The bond of union thus effected could never be severed; and although Ben Zoof's achievements had fairly earned him the right of retirement, he firmly declined all honors or any pension that might part him from his superior officer. Two stout arms, an iron constitution, a powerful frame, and an indomitable courage were all loyally devoted to his master's service, and fairly entitled him to his soi-disant designation of "The Rampart of Montmartre." Unlike his master, he made no pretension to any gift of poetic power, but his inexhaustible memory made him a living encyclopaedia; and for his stock of anecdotes and trooper's tales he was matchless.

Thoroughly appreciating his servant's good qualities, Captain Servadac endured with imperturbable good humor those idiosyncrasies, which in

a less faithful follower would have been intolerable, and from time to time he would drop a word of sympathy that served to deepen his subordinate's devotion.

On one occasion, when Ben Zoof had mounted his hobby-horse, and was indulging in high-flown praises about his beloved eighteenth arrondissement, the captain had remarked gravely, "Do you know, Ben Zoof, that Montmartre only requires a matter of some thirteen thousand feet to make it as high as Mont Blanc?"

Ben Zoof's eyes glistened with delight; and from that moment Hector Servadac and Montmartre held equal places in his affection.

CHAPTER III. INTERRUPTED EFFUSIONS

Composed of mud and loose stones, and covered with a thatch of turf and straw, known to the natives by the name of "driss," the gourbi, though a grade better than the tents of the nomad Arabs, was yet far inferior to any habitation built of brick or stone. It adjoined an old stone hostelry, previously occupied by a detachment of engineers, and which now afforded shelter for Ben Zoof and the two horses. It still contained a considerable number of tools, such as mattocks, shovels, and pick-axes.

Uncomfortable as was their temporary abode, Servadac and his attendant made no complaints; neither of them was dainty in the matter either of board or lodging. After dinner, leaving his orderly to stow away the remains of the repast in what he was pleased to term the "cupboard of his stomach." Captain Servadac turned out into the open air to smoke his pipe upon the edge of the cliff. The shades of night were drawing on. An hour previously, veiled in heavy clouds, the sun had sunk below the horizon that bounded the plain beyond the Shelif.

The sky presented a most singular appearance. Towards the north, although the darkness rendered it impossible to see beyond a quarter of a mile, the upper strata of the atmosphere were suffused with a

rosy glare. No well-defined fringe of light, nor arch of luminous rays, betokened a display of aurora borealis, even had such a phenomenon been possible in these latitudes; and the most experienced meteorologist would have been puzzled to explain the cause of this striking illumination on this 31st of December, the last evening of the passing year.

But Captain Servadac was no meteorologist, and it is to be doubted whether, since leaving school, he had ever opened his "Course of Cosmography." Besides, he had other thoughts to occupy his mind. The prospects of the morrow offered serious matter for consideration. The captain was actuated by no personal animosity against the count; though rivals, the two men regarded each other with sincere respect; they had simply reached a crisis in which one of them was de trop; which of them, fate must decide.

At eight o'clock, Captain Servadac re-entered the gourbi, the single apartment of which contained his bed, a small writing-table, and some trunks that served instead of cupboards. The orderly performed his culinary operations in the adjoining building, which he also used as a bed-room, and where, extended on what he called his "good oak mattress," he would sleep soundly as a dormouse for twelve hours at a stretch. Ben Zoof had not yet received his orders to retire, and ensconcing himself in a corner of the gourbi, he endeavored to doze--a task which the

unusual agitation of his master rendered somewhat difficult. Captain Servadac was evidently in no hurry to betake himself to rest, but seating himself at his table, with a pair of compasses and a sheet of tracing-paper, he began to draw, with red and blue crayons, a variety of colored lines, which could hardly be supposed to have much connection with a topographical survey. In truth, his character of staff-officer was now entirely absorbed in that of Gascon poet. Whether he imagined that the compasses would bestow upon his verses the measure of a mathematical accuracy, or whether he fancied that the parti-colored lines would lend variety to his rhythm, it is impossible to determine; be that as it may, he was devoting all his energies to the compilation of his rondo, and supremely difficult he found the task.

"Hang it!" he ejaculated, "whatever induced me to choose this meter? It is as hard to find rhymes as to rally fugitive in a battle. But, by all the powers! it shan't be said that a French officer cannot cope with a piece of poetry. One battalion has fought--now for the rest!"

Perseverance had its reward. Presently two lines, one red, the other blue, appeared upon the paper, and the captain murmured:

"Words, mere words, cannot avail,
Telling true heart's tender tale."

"What on earth ails my master?" muttered Ben Zoof; "for the last hour he has been as fidgety as a bird returning after its winter migration."

Servadac suddenly started from his seat, and as he paced the room with all the frenzy of poetic inspiration, read out:

"Empty words cannot convey
All a lover's heart would say."

"Well, to be sure, he is at his everlasting verses again!" said Ben Zoof to himself, as he roused himself in his corner. "Impossible to sleep in such a noise;" and he gave vent to a loud groan.

"How now, Ben Zoof?" said the captain sharply. "What ails you?"

"Nothing, sir, only the nightmare."

"Curse the fellow, he has quite interrupted me!" ejaculated the captain. "Ben Zoof!" he called aloud.

"Here, sir!" was the prompt reply; and in an instant the orderly was upon his feet, standing in a military attitude, one hand to his forehead, the other closely pressed to his trouser-seam.

"Stay where you are! don't move an inch!" shouted Servadac; "I have just thought of the end of my rondo." And in a voice of inspiration, accompanying his words with dramatic gestures, Servadac began to declaim:

"Listen, lady, to my vows--
O, consent to be my spouse;
Constant ever I will be,
Constant...."

No closing lines were uttered. All at once, with unutterable violence, the captain and his orderly were dashed, face downwards, to the ground.

CHAPTER IV. A CONVULSION OF NATURE

Whence came it that at that very moment the horizon underwent so strange and sudden a modification, that the eye of the most practiced mariner could not distinguish between sea and sky?

Whence came it that the billows raged and rose to a height hitherto unregistered in the records of science?

Whence came it that the elements united in one deafening crash; that the earth groaned as though the whole framework of the globe were ruptured; that the waters roared from their innermost depths; that the air shrieked with all the fury of a cyclone?

Whence came it that a radiance, intenser than the effulgence of the Northern Lights, overspread the firmament, and momentarily dimmed the splendor of the brightest stars?

Whence came it that the Mediterranean, one instant emptied of its waters, was the next flooded with a foaming surge?

Whence came it that in the space of a few seconds the moon's disc reached a magnitude as though it were but a tenth part of its ordinary

distance from the earth?

Whence came it that a new blazing spheroid, hitherto unknown to astronomy, now appeared suddenly in the firmament, though it were but to lose itself immediately behind masses of accumulated cloud?

What phenomenon was this that had produced a cataclysm so tremendous in effect upon earth, sky, and sea?

Was it possible that a single human being could have survived the convulsion? and if so, could he explain its mystery?

CHAPTER V. A MYSTERIOUS SEA

Violent as the commotion had been, that portion of the Algerian coast which is bounded on the north by the Mediterranean, and on the west by the right bank of the Shelif, appeared to have suffered little change. It is true that indentations were perceptible in the fertile plain, and the surface of the sea was ruffled with an agitation that was quite unusual; but the rugged outline of the cliff was the same as heretofore, and the aspect of the entire scene appeared unaltered. The stone hostelry, with the exception of some deep clefts in its walls, had sustained little injury; but the gourbi, like a house of cards destroyed by an infant's breath, had completely subsided, and its two inmates lay motionless, buried under the sunken thatch.

It was two hours after the catastrophe that Captain Servadac regained consciousness; he had some trouble to collect his thoughts, and the first sounds that escaped his lips were the concluding words of the rondo which had been so ruthlessly interrupted;

"Constant ever I will be,
Constant...."

His next thought was to wonder what had happened; and in order to find

an answer, he pushed aside the broken thatch, so that his head appeared above the debris. "The gourbi leveled to the ground!" he exclaimed, "surely a waterspout has passed along the coast."

He felt all over his body to perceive what injuries he had sustained, but not a sprain nor a scratch could he discover. "Where are you, Ben Zoof?" he shouted.

"Here, sir!" and with military promptitude a second head protruded from the rubbish.

"Have you any notion what has happened, Ben Zoof?"

"I've a notion, captain, that it's all up with us."

"Nonsense, Ben Zoof; it is nothing but a waterspout!"

"Very good, sir," was the philosophical reply, immediately followed by the query, "Any bones broken, sir?"

"None whatever," said the captain.

Both men were soon on their feet, and began to make a vigorous clearance of the ruins, beneath which they found that their arms, cooking

utensils, and other property, had sustained little injury.

"By-the-by, what o'clock is it?" asked the captain.

"It must be eight o'clock, at least," said Ben Zoof, looking at the sun, which was a considerable height above the horizon. "It is almost time for us to start."

"To start! what for?"

"To keep your appointment with Count Timascheff."

"By Jove! I had forgotten all about it!" exclaimed Servadac. Then looking at his watch, he cried, "What are you thinking of, Ben Zoof? It is scarcely two o'clock."

"Two in the morning, or two in the afternoon?" asked Ben Zoof, again regarding the sun.

Servadac raised his watch to his ear. "It is going," said he; "but, by all the wines of Medoc, I am puzzled. Don't you see the sun is in the west? It must be near setting."

"Setting, captain! Why, it is rising finely, like a conscript at the

sound of the reveille. It is considerably higher since we have been talking."

Incredible as it might appear, the fact was undeniable that the sun was rising over the Shelif from that quarter of the horizon behind which it usually sank for the latter portion of its daily round. They were utterly bewildered. Some mysterious phenomenon must not only have altered the position of the sun in the sidereal system, but must even have brought about an important modification of the earth's rotation on her axis.

Captain Servadac consoled himself with the prospect of reading an explanation of the mystery in next week's newspapers, and turned his attention to what was to him of more immediate importance. "Come, let us be off," said he to his orderly; "though heaven and earth be topsy-turvy, I must be at my post this morning."

"To do Count Timascheff the honor of running him through the body," added Ben Zoof.

If Servadac and his orderly had been less preoccupied, they would have noticed that a variety of other physical changes besides the apparent alteration in the movement of the sun had been evolved during the atmospheric disturbances of that New Year's night. As they descended

the steep footpath leading from the cliff towards the Shelif, they were unconscious that their respiration became forced and rapid, like that of a mountaineer when he has reached an altitude where the air has become less charged with oxygen. They were also unconscious that their voices were thin and feeble; either they must themselves have become rather deaf, or it was evident that the air had become less capable of transmitting sound.

The weather, which on the previous evening had been very foggy, had entirely changed. The sky had assumed a singular tint, and was soon covered with lowering clouds that completely hid the sun. There were, indeed, all the signs of a coming storm, but the vapor, on account of the insufficient condensation, failed to fall.

The sea appeared quite deserted, a most unusual circumstance along this coast, and not a sail nor a trail of smoke broke the gray monotony of water and sky. The limits of the horizon, too, had become much circumscribed. On land, as well as on sea, the remote distance had completely disappeared, and it seemed as though the globe had assumed a more decided convexity.

At the pace at which they were walking, it was very evident that the captain and his attendant would not take long to accomplish the three miles that lay between the gourbi and the place of rendezvous. They

did not exchange a word, but each was conscious of an unusual buoyancy, which appeared to lift up their bodies and give as it were, wings to their feet. If Ben Zoof had expressed his sensations in words, he would have said that he felt "up to anything," and he had even forgotten to taste so much as a crust of bread, a lapse of memory of which the worthy soldier was rarely guilty.

As these thoughts were crossing his mind, a harsh bark was heard to the left of the footpath, and a jackal was seen emerging from a large grove of lentisks. Regarding the two wayfarers with manifest uneasiness, the beast took up its position at the foot of a rock, more than thirty feet in height. It belonged to an African species distinguished by a black spotted skin, and a black line down the front of the legs. At night-time, when they scour the country in herds, the creatures are somewhat formidable, but singly they are no more dangerous than a dog. Though by no means afraid of them, Ben Zoof had a particular aversion to jackals, perhaps because they had no place among the fauna of his beloved Montmartre. He accordingly began to make threatening gestures, when, to the unmitigated astonishment of himself and the captain, the animal darted forward, and in one single bound gained the summit of the rock.

"Good Heavens!" cried Ben Zoof, "that leap must have been thirty feet at least."

"True enough," replied the captain; "I never saw such a jump."

Meantime the jackal had seated itself upon its haunches, and was staring at the two men with an air of impudent defiance. This was too much for Ben Zoof's forbearance, and stooping down he caught up a huge stone, when to his surprise, he found that it was no heavier than a piece of petrified sponge. "Confound the brute!" he exclaimed, "I might as well throw a piece of bread at him. What accounts for its being as light as this?"

Nothing daunted, however, he hurled the stone into the air. It missed its aim; but the jackal, deeming it on the whole prudent to decamp, disappeared across the trees and hedges with a series of bounds, which could only be likened to those that might be made by an india-rubber kangaroo. Ben Zoof was sure that his own powers of propelling must equal those of a howitzer, for his stone, after a lengthened flight through the air, fell to the ground full five hundred paces the other side of the rock.

The orderly was now some yards ahead of his master, and had reached a ditch full of water, and about ten feet wide. With the intention of clearing it, he made a spring, when a loud cry burst from Servadac. "Ben Zoof, you idiot! What are you about? You will break your back!"

And well might he be alarmed, for Ben Zoof had sprung to a height of forty feet into the air. Fearful of the consequences that would attend the descent of his servant to terra firma, Servadac bounded forwards, to be on the other side of the ditch in time to break his fall. But the muscular effort that he made carried him in his turn to an altitude of thirty feet; in his ascent he passed Ben Zoof, who had already commenced his downward course; and then, obedient to the laws of gravitation, he descended with increasing rapidity, and alighted upon the earth without experiencing a shock greater than if he had merely made a bound of four or five feet high.

Ben Zoof burst into a roar of laughter. "Bravo!" he said, "we should make a good pair of clowns."

But the captain was inclined to take a more serious view of the matter. For a few seconds he stood lost in thought, then said solemnly, "Ben Zoof, I must be dreaming. Pinch me hard; I must be either asleep or mad."

"It is very certain that something has happened to us," said Ben Zoof. "I have occasionally dreamed that I was a swallow flying over the Montmartre, but I never experienced anything of this kind before; it must be peculiar to the coast of Algeria."

Servadac was stupefied; he felt instinctively that he was not dreaming, and yet was powerless to solve the mystery. He was not, however, the man to puzzle himself for long over any insoluble problem. "Come what may," he presently exclaimed, "we will make up our minds for the future to be surprised at nothing."

"Right, captain," replied Ben Zoof; "and, first of all, let us settle our little score with Count Timascheff."

Beyond the ditch lay a small piece of meadow land, about an acre in extent. A soft and delicious herbage carpeted the soil, whilst trees formed a charming framework to the whole. No spot could have been chosen more suitable for the meeting between the two adversaries.

Servadac cast a hasty glance round. No one was in sight. "We are the first on the field," he said.

"Not so sure of that, sir," said Ben Zoof.

"What do you mean?" asked Servadac, looking at his watch, which he had set as nearly as possible by the sun before leaving the gourbi; "it is not nine o'clock yet."

"Look up there, sir. I am much mistaken if that is not the sun;" and as Ben Zoof spoke, he pointed directly overhead to where a faint white disc was dimly visible through the haze of clouds.

"Nonsense!" exclaimed Servadac. "How can the sun be in the zenith, in the month of January, in lat. 39 degrees N.?"

"Can't say, sir. I only know the sun is there; and at the rate he has been traveling, I would lay my cap to a dish of couscous that in less than three hours he will have set."

Hector Servadac, mute and motionless, stood with folded arms. Presently he roused himself, and began to look about again. "What means all this?" he murmured. "Laws of gravity disturbed! Points of the compass reversed! The length of day reduced one half! Surely this will indefinitely postpone my meeting with the count. Something has happened; Ben Zoof and I cannot both be mad!"

The orderly, meantime, surveyed his master with the greatest equanimity; no phenomenon, however extraordinary, would have drawn from him a single exclamation of surprise. "Do you see anyone, Ben Zoof?" asked the captain, at last.

"No one, sir; the count has evidently been and gone." "But supposing

that to be the case," persisted the captain, "my seconds would have waited, and not seeing me, would have come on towards the gourbi. I can only conclude that they have been unable to get here; and as for Count Timascheff--"

Without finishing his sentence. Captain Servadac, thinking it just probable that the count, as on the previous evening, might come by water, walked to the ridge of rock that overhung the shore, in order to ascertain if the Dobryna were anywhere in sight. But the sea was deserted, and for the first time the captain noticed that, although the wind was calm, the waters were unusually agitated, and seethed and foamed as though they were boiling. It was very certain that the yacht would have found a difficulty in holding her own in such a swell. Another thing that now struck Servadac was the extraordinary contraction of the horizon. Under ordinary circumstances, his elevated position would have allowed him a radius of vision at least five and twenty miles in length; but the terrestrial sphere seemed, in the course of the last few hours, to have become considerably reduced in volume, and he could now see for a distance of only six miles in every direction.

Meantime, with the agility of a monkey, Ben Zoof had clambered to the top of a eucalyptus, and from his lofty perch was surveying the country to the south, as well as towards both Tenes and Mostaganem. On descending, be informed the captain that the plain was deserted.

"We will make our way to the river, and get over into Mostaganem," said the captain.

The Shelif was not more than a mile and a half from the meadow, but no time was to be lost if the two men were to reach the town before nightfall. Though still hidden by heavy clouds, the sun was evidently declining fast; and what was equally inexplicable, it was not following the oblique curve that in these latitudes and at this time of year might be expected, but was sinking perpendicularly on to the horizon.

As he went along, Captain Servadac pondered deeply. Perchance some unheard-of phenomenon had modified the rotary motion of the globe; or perhaps the Algerian coast had been transported beyond the equator into the southern hemisphere. Yet the earth, with the exception of the alteration in its convexity, in this part of Africa at least, seemed to have undergone no change of any very great importance. As far as the eye could reach, the shore was, as it had ever been, a succession of cliffs, beach, and arid rocks, tinged with a red ferruginous hue. To the south--if south, in this inverted order of things, it might still be called--the face of the country also appeared unaltered, and some leagues away, the peaks of the Merdeyah mountains still retained their accustomed outline.

Presently a rift in the clouds gave passage to an oblique ray of light that clearly proved that the sun was setting in the east.

"Well, I am curious to know what they think of all this at Mostaganem," said the captain. "I wonder, too, what the Minister of War will say when he receives a telegram informing him that his African colony has become, not morally, but physically disorganized; that the cardinal points are at variance with ordinary rules, and that the sun in the month of January is shining down vertically upon our heads."

Ben Zoof, whose ideas of discipline were extremely rigid, at once suggested that the colony should be put under the surveillance of the police, that the cardinal points should be placed under restraint, and that the sun should be shot for breach of discipline.

Meantime, they were both advancing with the utmost speed. The decompression of the atmosphere made the specific gravity of their bodies extraordinarily light, and they ran like hares and leaped like chamois. Leaving the devious windings of the footpath, they went as a crow would fly across the country. Hedges, trees, and streams were cleared at a bound, and under these conditions Ben Zoof felt that he could have overstepped Montmartre at a single stride. The earth seemed as elastic as the springboard of an acrobat; they scarcely touched it with their feet, and their only fear was lest the height to which they

were propelled would consume the time which they were saving by their short cut across the fields.

It was not long before their wild career brought them to the right bank of the Shelif. Here they were compelled to stop, for not only had the bridge completely disappeared, but the river itself no longer existed. Of the left bank there was not the slightest trace, and the right bank, which on the previous evening had bounded the yellow stream, as it murmured peacefully along the fertile plain, had now become the shore of a tumultuous ocean, its azure waters extending westwards far as the eye could reach, and annihilating the tract of country which had hitherto formed the district of Mostaganem. The shore coincided exactly with what had been the right bank of the Shelif, and in a slightly curved line ran north and south, whilst the adjacent groves and meadows all retained their previous positions. But the river-bank had become the shore of an unknown sea.

Eager to throw some light upon the mystery, Servadac hurriedly made his way through the oleander bushes that overhung the shore, took up some water in the hollow of his hand, and carried it to his lips. "Salt as brine!" he exclaimed, as soon as he had tasted it. "The sea has undoubtedly swallowed up all the western part of Algeria."

"It will not last long, sir," said Ben Zoof. "It is, probably, only a

severe flood."

The captain shook his head. "Worse than that, I fear, Ben Zoof," he replied with emotion. "It is a catastrophe that may have very serious consequences. What can have become of all my friends and fellow-officers?"

Ben Zoof was silent. Rarely had he seen his master so much agitated; and though himself inclined to receive these phenomena with philosophic indifference, his notions of military duty caused his countenance to reflect the captain's expression of amazement.

But there was little time for Servadac to examine the changes which a few hours had wrought. The sun had already reached the eastern horizon, and just as though it were crossing the ecliptic under the tropics, it sank like a cannon ball into the sea. Without any warning, day gave place to night, and earth, sea, and sky were immediately wrapped in profound obscurity.

CHAPTER VI. THE CAPTAIN MAKES AN EXPLORATION

Hector Servadac was not the man to remain long unnerved by any untoward event. It was part of his character to discover the why and the wherefore of everything that came under his observation, and he would have faced a cannon ball the more unflinchingly from understanding the dynamic force by which it was propelled. Such being his temperament, it may well be imagined that he was anxious not to remain long in ignorance of the cause of the phenomena which had been so startling in their consequences.

"We must inquire into this to-morrow," he exclaimed, as darkness fell suddenly upon him. Then, after a pause, he added: "That is to say, if there is to be a to-morrow; for if I were to be put to the torture, I could not tell what has become of the sun."

"May I ask, sir, what we are to do now?" put in Ben Zoof.

"Stay where we are for the present; and when daylight appears--if it ever does appear--we will explore the coast to the west and south, and return to the gourbi. If we can find out nothing else, we must at least discover where we are."

"Meanwhile, sir, may we go to sleep?"

"Certainly, if you like, and if you can."

Nothing loath to avail himself of his master's permission, Ben Zoof crouched down in an angle of the shore, threw his arms over his eyes, and very soon slept the sleep of the ignorant, which is often sounder than the sleep of the just. Overwhelmed by the questions that crowded upon his brain, Captain Servadac could only wander up and down the shore. Again and again he asked himself what the catastrophe could portend. Had the towns of Algiers, Oran, and Mostaganem escaped the inundation? Could he bring himself to believe that all the inhabitants, his friends, and comrades had perished; or was it not more probable that the Mediterranean had merely invaded the region of the mouth of the Shelif? But this supposition did not in the least explain the other physical disturbances. Another hypothesis that presented itself to his mind was that the African coast might have been suddenly transported to the equatorial zone. But although this might get over the difficulty of the altered altitude of the sun and the absence of twilight, yet it would neither account for the sun setting in the east, nor for the length of the day being reduced to six hours.

"We must wait till to-morrow," he repeated; adding, for he had become distrustful of the future, "that is to say, if to-morrow ever comes."

Although not very learned in astronomy, Servadac was acquainted with the position of the principal constellations. It was therefore a considerable disappointment to him that, in consequence of the heavy clouds, not a star was visible in the firmament. To have ascertained that the pole-star had become displaced would have been an undeniable proof that the earth was revolving on a new axis; but not a rift appeared in the lowering clouds, which seemed to threaten torrents of rain.

It happened that the moon was new on that very day; naturally, therefore, it would have set at the same time as the sun. What, then, was the captain's bewilderment when, after he had been walking for about an hour and a half, he noticed on the western horizon a strong glare that penetrated even the masses of the clouds.

"The moon in the west!" he cried aloud; but suddenly bethinking himself, he added: "But no, that cannot be the moon; unless she had shifted very much nearer the earth, she could never give a light as intense as this."

As he spoke the screen of vapor was illuminated to such a degree that the whole country was as it were bathed in twilight. "What can this be?" soliloquized the captain. "It cannot be the sun, for the sun set in the east only an hour and a half ago. Would that those clouds would disclose

what enormous luminary lies behind them! What a fool I was not to have learnt more astronomy! Perhaps, after all, I am racking my brain over something that is quite in the ordinary course of nature."

But, reason as he might, the mysteries of the heavens still remained impenetrable. For about an hour some luminous body, its disc evidently of gigantic dimensions, shed its rays upon the upper strata of the clouds; then, marvelous to relate, instead of obeying the ordinary laws of celestial mechanism, and descending upon the opposite horizon, it seemed to retreat farther off, grew dimmer, and vanished.

The darkness that returned to the face of the earth was not more profound than the gloom which fell upon the captain's soul. Everything was incomprehensible. The simplest mechanical rules seemed falsified; the planets had defied the laws of gravitation; the motions of the celestial spheres were erroneous as those of a watch with a defective mainspring, and there was reason to fear that the sun would never again shed his radiance upon the earth.

But these last fears were groundless. In three hours' time, without any intervening twilight, the morning sun made its appearance in the west, and day once more had dawned. On consulting his watch, Servadac found that night had lasted precisely six hours. Ben Zoof, who was unaccustomed to so brief a period of repose, was still slumbering

soundly.

"Come, wake up!" said Servadac, shaking him by the shoulder; "it is time to start."

"Time to start?" exclaimed Ben Zoof, rubbing his eyes. "I feel as if I had only just gone to sleep."

"You have slept all night, at any rate," replied the captain; "it has only been for six hours, but you must make it enough."

"Enough it shall be, sir," was the submissive rejoinder.

"And now," continued Servadac, "we will take the shortest way back to the gourbi, and see what our horses think about it all."

"They will think that they ought to be groomed," said the orderly.

"Very good; you may groom them and saddle them as quickly as you like. I want to know what has become of the rest of Algeria: if we cannot get round by the south to Mostaganem, we must go eastwards to Tenes." And forthwith they started. Beginning to feel hungry, they had no hesitation in gathering figs, dates, and oranges from the plantations that formed a continuous rich and luxuriant orchard along their path. The district was

quite deserted, and they had no reason to fear any legal penalty.

In an hour and a half they reached the gourbi. Everything was just as they had left it, and it was evident that no one had visited the place during their absence. All was desolate as the shore they had quitted.

The preparations for the expedition were brief and simple. Ben Zoof saddled the horses and filled his pouch with biscuits and game; water, he felt certain, could be obtained in abundance from the numerous affluents of the Shelif, which, although they had now become tributaries of the Mediterranean, still meandered through the plain. Captain Servadac mounted his horse Zephyr, and Ben Zoof simultaneously got astride his mare Galette, named after the mill of Montmartre. They galloped off in the direction of the Shelif, and were not long in discovering that the diminution in the pressure of the atmosphere had precisely the same effect upon their horses as it had had upon themselves. Their muscular strength seemed five times as great as hitherto; their hoofs scarcely touched the ground, and they seemed transformed from ordinary quadrupeds into veritable hippogriffs. Happily, Servadac and his orderly were fearless riders; they made no attempt to curb their steeds, but even urged them to still greater exertions. Twenty minutes sufficed to carry them over the four or five miles that intervened between the gourbi and the mouth of the Shelif; then, slackening their speed, they proceeded at a more leisurely pace to

the southeast, along what had once been the right bank of the river, but which, although it still retained its former characteristics, was now the boundary of a sea, which extending farther than the limits of the horizon, must have swallowed up at least a large portion of the province of Oran. Captain Servadac knew the country well; he had at one time been engaged upon a trigonometrical survey of the district, and consequently had an accurate knowledge of its topography. His idea now was to draw up a report of his investigations: to whom that report should be delivered was a problem he had yet to solve.

During the four hours of daylight that still remained, the travelers rode about twenty-one miles from the river mouth. To their vast surprise, they did not meet a single human being. At nightfall they again encamped in a slight bend of the shore, at a point which on the previous evening had faced the mouth of the Mina, one of the left-hand affluents of the Shelif, but now absorbed into the newly revealed ocean. Ben Zoof made the sleeping accommodation as comfortable as the circumstances would allow; the horses were clogged and turned out to feed upon the rich pasture that clothed the shore, and the night passed without special incident.

At sunrise on the following morning, the 2nd of January, or what, according to the ordinary calendar, would have been the night of the 1st, the captain and his orderly remounted their horses, and during the

six-hours' day accomplished a distance of forty-two miles. The right bank of the river still continued to be the margin of the land, and only in one spot had its integrity been impaired. This was about twelve miles from the Mina, and on the site of the annex or suburb of Surkelmittoo. Here a large portion of the bank had been swept away, and the hamlet, with its eight hundred inhabitants, had no doubt been swallowed up by the encroaching waters. It seemed, therefore, more than probable that a similar fate had overtaken the larger towns beyond the Shelif.

In the evening the explorers encamped, as previously, in a nook of the shore which here abruptly terminated their new domain, not far from where they might have expected to find the important village of Memounturroy; but of this, too, there was now no trace. "I had quite reckoned upon a supper and a bed at Orleansville to-night," said Servadac, as, full of despondency, he surveyed the waste of water.

"Quite impossible," replied Ben Zoof, "except you had gone by a boat. But cheer up, sir, cheer up; we will soon devise some means for getting across to Mostaganem."

"If, as I hope," rejoined the captain, "we are on a peninsula, we are more likely to get to Tenes; there we shall hear the news."

"Far more likely to carry the news ourselves," answered Ben Zoof, as he

threw himself down for his night's rest.

Six hours later, only waiting for sunrise, Captain Servadac set himself in movement again to renew his investigations. At this spot the shore, that hitherto had been running in a southeasterly direction, turned abruptly to the north, being no longer formed by the natural bank of the Shelif, but consisting of an absolutely new coast-line. No land was in sight. Nothing could be seen of Orleansville, which ought to have been about six miles to the southwest; and Ben Zoof, who had mounted the highest point of view attainable, could distinguish sea, and nothing but sea, to the farthest horizon.

Quitting their encampment and riding on, the bewildered explorers kept close to the new shore. This, since it had ceased to be formed by the original river bank, had considerably altered its aspect. Frequent landslips occurred, and in many places deep chasms rifted the ground; great gaps furrowed the fields, and trees, half uprooted, overhung the water, remarkable by the fantastic distortions of their gnarled trunks, looking as though they had been chopped by a hatchet.

The sinuosities of the coast line, alternately gully and headland, had the effect of making a devious progress for the travelers, and at sunset, although they had accomplished more than twenty miles, they had only just arrived at the foot of the Merdeyah Mountains, which, before

the cataclysm, had formed the extremity of the chain of the Little Atlas. The ridge, however, had been violently ruptured, and now rose perpendicularly from the water.

On the following morning Servadac and Ben Zoof traversed one of the mountain gorges; and next, in order to make a more thorough acquaintance with the limits and condition of the section of Algerian territory of which they seemed to be left as the sole occupants, they dismounted, and proceeded on foot to the summit of one of the highest peaks. From this elevation they ascertained that from the base of the Merdeyah to the Mediterranean, a distance of about eighteen miles, a new coast line had come into existence; no land was visible in any direction; no isthmus existed to form a connecting link with the territory of Tenes, which had entirely disappeared. The result was that Captain Servadac was driven to the irresistible conclusion that the tract of land which he had been surveying was not, as he had at first imagined, a peninsula; it was actually an island.

Strictly speaking, this island was quadrilateral, but the sides were so irregular that it was much more nearly a triangle, the comparison of the sides exhibiting these proportions: The section of the right bank of the Shelif, seventy-two miles; the southern boundary from the Shelif to the chain of the Little Atlas, twenty-one miles; from the Little Atlas to the Mediterranean, eighteen miles; and sixty miles of the shore of the

Mediterranean itself, making in all an entire circumference of about 171 miles.

"What does it all mean?" exclaimed the captain, every hour growing more and more bewildered.

"The will of Providence, and we must submit," replied Ben Zoof, calm and undisturbed. With this reflection, the two men silently descended the mountain and remounted their horses. Before evening they had reached the Mediterranean. On their road they failed to discern a vestige of the little town of Montenotte; like Tenes, of which not so much as a ruined cottage was visible on the horizon, it seemed to be annihilated.

On the following day, the 6th of January, the two men made a forced march along the coast of the Mediterranean, which they found less altered than the captain had at first supposed; but four villages had entirely disappeared, and the headlands, unable to resist the shock of the convulsion, had been detached from the mainland.

The circuit of the island had been now completed, and the explorers, after a period of sixty hours, found themselves once more beside the ruins of their gourbi. Five days, or what, according to the established order of things, would have been two days and a half, had been occupied in tracing the boundaries of their new domain; and they had ascertained

beyond a doubt that they were the sole human inhabitants left upon the island.

"Well, sir, here you are, Governor General of Algeria!" exclaimed Ben Zoof, as they reached the gourbi.

"With not a soul to govern," gloomily rejoined the captain.

"How so? Do you not reckon me?"

"Pshaw! Ben Zoof, what are you?"

"What am I? Why, I am the population."

The captain deigned no reply, but, muttering some expressions of regret for the fruitless trouble he had taken about his rondo, betook himself to rest.

CHAPTER VII. BEN ZOOF WATCHES IN VAIN

In a few minutes the governor general and his population were asleep. The gourbi being in ruins, they were obliged to put up with the best accommodation they could find in the adjacent erection. It must be owned that the captain's slumbers were by no means sound; he was agitated by the consciousness that he had hitherto been unable to account for his strange experiences by any reasonable theory. Though far from being advanced in the knowledge of natural philosophy, he had been instructed, to a certain degree, in its elementary principles; and, by an effort of memory, he managed to recall some general laws which he had almost forgotten. He could understand that an altered inclination of the earth's axis with regard to the ecliptic would introduce a change of position in the cardinal points, and bring about a displacement of the sea; but the hypothesis entirely failed to account, either for the shortening of the days, or for the diminution in the pressure of the atmosphere. He felt that his judgment was utterly baffled; his only remaining hope was that the chain of marvels was not yet complete, and that something farther might throw some light upon the mystery.

Ben Zoof's first care on the following morning was to provide a good breakfast. To use his own phrase, he was as hungry as the whole population of three million Algerians, of whom he was the

representative, and he must have enough to eat. The catastrophe which had overwhelmed the country had left a dozen eggs uninjured, and upon these, with a good dish of his famous couscous, he hoped that he and his master might have a sufficiently substantial meal. The stove was ready for use, the copper skillet was as bright as hands could make it, and the beads of condensed steam upon the surface of a large stone al-caraza gave evidence that it was supplied with water. Ben Zoof at once lighted a fire, singing all the time, according to his wont, a snatch of an old military refrain.

Ever on the lookout for fresh phenomena, Captain Servadac watched the preparations with a curious eye. It struck him that perhaps the air, in its strangely modified condition, would fail to supply sufficient oxygen, and that the stove, in consequence, might not fulfill its function. But no; the fire was lighted just as usual, and fanned into vigor by Ben Zoof applying his mouth in lieu of bellows, and a bright flame started up from the midst of the twigs and coal. The skillet was duly set upon the stove, and Ben Zoof was prepared to wait awhile for the water to boil. Taking up the eggs, he was surprised to notice that they hardly weighed more than they would if they had been mere shells; but he was still more surprised when he saw that before the water had been two minutes over the fire it was at full boil.

"By jingo!" he exclaimed, "a precious hot fire!"

Servadac reflected. "It cannot be that the fire is hotter," he said, "the peculiarity must be in the water." And taking down a centigrade thermometer, which hung upon the wall, he plunged it into the skillet. Instead of 100 degrees, the instrument registered only 66 degrees.

"Take my advice, Ben Zoof," he said; "leave your eggs in the saucepan a good quarter of an hour."

"Boil them hard! That will never do," objected the orderly.

"You will not find them hard, my good fellow. Trust me, we shall be able to dip our sippets into the yolks easily enough."

The captain was quite right in his conjecture, that this new phenomenon was caused by a diminution in the pressure of the atmosphere. Water boiling at a temperature of 66 degrees was itself an evidence that the column of air above the earth's surface had become reduced by one-third of its altitude. The identical phenomenon would have occurred at the summit of a mountain 35,000 feet high; and had Servadac been in possession of a barometer, he would have immediately discovered the fact that only now for the first time, as the result of experiment, revealed itself to him--a fact, moreover, which accounted for the compression of the blood-vessels which both he and Ben Zoof had experienced, as well

as for the attenuation of their voices and their accelerated breathing. "And yet," he argued with himself, "if our encampment has been projected to so great an elevation, how is it that the sea remains at its proper level?"

Once again Hector Servadac, though capable of tracing consequences, felt himself totally at a loss to comprehend their cause; hence his agitation and bewilderment!

After their prolonged immersion in the boiling water, the eggs were found to be only just sufficiently cooked; the couscous was very much in the same condition; and Ben Zoof came to the conclusion that in future he must be careful to commence his culinary operations an hour earlier. He was rejoiced at last to help his master, who, in spite of his perplexed preoccupation, seemed to have a very fair appetite for breakfast.

"Well, captain?" said Ben Zoof presently, such being his ordinary way of opening conversation.

"Well, Ben Zoof?" was the captain's invariable response to his servant's formula.

"What are we to do now, sir?"

"We can only for the present wait patiently where we are. We are encamped upon an island, and therefore we can only be rescued by sea."

"But do you suppose that any of our friends are still alive?" asked Ben Zoof.

"Oh, I think we must indulge the hope that this catastrophe has not extended far. We must trust that it has limited its mischief to some small portion of the Algerian coast, and that our friends are all alive and well. No doubt the governor general will be anxious to investigate the full extent of the damage, and will send a vessel from Algiers to explore. It is not likely that we shall be forgotten. What, then, you have to do, Ben Zoof, is to keep a sharp lookout, and to be ready, in case a vessel should appear, to make signals at once."

"But if no vessel should appear!" sighed the orderly.

"Then we must build a boat, and go in search of those who do not come in search of us."

"Very good. But what sort of a sailor are you?"

"Everyone can be a sailor when he must," said Servadac calmly.

Ben Zoof said no more. For several succeeding days he scanned the horizon unintermittently with his telescope. His watching was in vain. No ship appeared upon the desert sea. "By the name of a Kabyle!" he broke out impatiently, "his Excellency is grossly negligent!"

Although the days and nights had become reduced from twenty-four hours to twelve, Captain Servadac would not accept the new condition of things, but resolved to adhere to the computations of the old calendar. Notwithstanding, therefore, that the sun had risen and set twelve times since the commencement of the new year, he persisted in calling the following day the 6th of January. His watch enabled him to keep an accurate account of the passing hours.

In the course of his life, Ben Zoof had read a few books. After pondering one day, he said: "It seems to me, captain, that you have turned into Robinson Crusoe, and that I am your man Friday. I hope I have not become a negro."

"No," replied the captain. "Your complexion isn't the fairest in the world, but you are not black yet."

"Well, I had much sooner be a white Friday than a black one," rejoined Ben Zoof.

Still no ship appeared; and Captain Servadac, after the example of all previous Crusoes, began to consider it advisable to investigate the resources of his domain. The new territory of which he had become the monarch he named Gourbi Island. It had a superficial area of about nine hundred square miles. Bullocks, cows, goats, and sheep existed in considerable numbers; and as there seemed already to be an abundance of game, it was hardly likely that a future supply would fail them. The condition of the cereals was such as to promise a fine ingathering of wheat, maize, and rice; so that for the governor and his population, with their two horses, not only was there ample provision, but even if other human inhabitants besides themselves should yet be discovered, there was not the remotest prospect of any of them perishing by starvation.

From the 6th to the 13th of January the rain came down in torrents; and, what was quite an unusual occurrence at this season of the year, several heavy storms broke over the island. In spite, however, of the continual downfall, the heavens still remained veiled in cloud. Servadac, moreover, did not fail to observe that for the season the temperature was unusually high; and, as a matter still more surprising, that it kept steadily increasing, as though the earth were gradually and continuously approximating to the sun. In proportion to the rise of temperature, the light also assumed greater intensity; and if it had not been for

the screen of vapor interposed between the sky and the island, the irradiation which would have illumined all terrestrial objects would have been vivid beyond all precedent.

But neither sun, moon, nor star ever appeared; and Servadac's irritation and annoyance at being unable to identify any one point of the firmament may be more readily imagined than described. On one occasion Ben Zoof endeavored to mitigate his master's impatience by exhorting him to assume the resignation, even if he did not feel the indifference, which he himself experienced; but his advice was received with so angry a rebuff that he retired in all haste, abashed, to résumé his watchman's duty, which he performed with exemplary perseverance. Day and night, with the shortest possible intervals of rest, despite wind, rain, and storm, he mounted guard upon the cliff--but all in vain. Not a speck appeared upon the desolate horizon. To say the truth, no vessel could have stood against the weather. The hurricane raged with tremendous fury, and the waves rose to a height that seemed to defy calculation. Never, even in the second era of creation, when, under the influence of internal heat, the waters rose in vapor to descend in deluge back upon the world, could meteorological phenomena have been developed with more impressive intensity.

But by the night of the 13th the tempest appeared to have spent its fury; the wind dropped; the rain ceased as if by a spell; and Servadac,

who for the last six days had confined himself to the shelter of his roof, hastened to join Ben Zoof at his post upon the cliff. Now, he thought, there might be a chance of solving his perplexity; perhaps now the huge disc, of which he had had an imperfect glimpse on the night of the 31st of December, might again reveal itself; at any rate, he hoped for an opportunity of observing the constellations in a clear firmament above.

The night was magnificent. Not a cloud dimmed the luster of the stars, which spangled the heavens in surpassing brilliancy, and several nebulae which hitherto no astronomer had been able to discern without the aid of a telescope were clearly visible to the naked eye.

By a natural impulse, Servadac's first thought was to observe the position of the pole-star. It was in sight, but so near to the horizon as to suggest the utter impossibility of its being any longer the central pivot of the sidereal system; it occupied a position through which it was out of the question that the axis of the earth indefinitely prolonged could ever pass. In his impression he was more thoroughly confirmed when, an hour later, he noticed that the star had approached still nearer the horizon, as though it had belonged to one of the zodiacal constellations.

The pole-star being manifestly thus displaced, it remained to be

discovered whether any other of the celestial bodies had become a fixed center around which the constellations made their apparent daily revolutions. To the solution of this problem Servadac applied himself with the most thoughtful diligence. After patient observation, he satisfied himself that the required conditions were answered by a certain star that was stationary not far from the horizon. This was Vega, in the constellation Lyra, a star which, according to the precession of the equinoxes, will take the place of our pole-star 12,000 years hence. The most daring imagination could not suppose that a period of 12,000 years had been crowded into the space of a fortnight; and therefore the captain came, as to an easier conclusion, to the opinion that the earth's axis had been suddenly and immensely shifted; and from the fact that the axis, if produced, would pass through a point so little removed above the horizon, he deduced the inference that the Mediterranean must have been transported to the equator.

Lost in bewildering maze of thought, he gazed long and intently upon the heavens. His eyes wandered from where the tail of the Great Bear, now a zodiacal constellation, was scarcely visible above the waters, to where the stars of the southern hemisphere were just breaking on his view. A cry from Ben Zoof recalled him to himself.

"The moon!" shouted the orderly, as though overjoyed at once again beholding what the poet has called:

"The kind companion of terrestrial night;"

and he pointed to a disc that was rising at a spot precisely opposite the place where they would have expected to see the sun. "The moon!" again he cried.

But Captain Servadac could not altogether enter into his servant's enthusiasm. If this were actually the moon, her distance from the earth must have been increased by some millions of miles. He was rather disposed to suspect that it was not the earth's satellite at all, but some planet with its apparent magnitude greatly enlarged by its approximation to the earth. Taking up the powerful field-glass which he was accustomed to use in his surveying operations, he proceeded to investigate more carefully the luminous orb. But he failed to trace any of the lineaments, supposed to resemble a human face, that mark the lunar surface; he failed to decipher any indications of hill and plain; nor could he make out the aureole of light which emanates from what astronomers have designated Mount Tycho. "It is not the moon," he said slowly.

"Not the moon?" cried Ben Zoof. "Why not?"

"It is not the moon," again affirmed the captain.

"Why not?" repeated Ben Zoof, unwilling to renounce his first impression.

"Because there is a small satellite in attendance." And the captain drew his servant's attention to a bright speck, apparently about the size of one of Jupiter's satellites seen through a moderate telescope, that was clearly visible just within the focus of his glass.

Here, then, was a fresh mystery. The orbit of this planet was assuredly interior to the orbit of the earth, because it accompanied the sun in its apparent motion; yet it was neither Mercury nor Venus, because neither one nor the other of these has any satellite at all.

The captain stamped and stamped again with mingled vexation, agitation, and bewilderment. "Confound it!" he cried, "if this is neither Venus nor Mercury, it must be the moon; but if it is the moon, whence, in the name of all the gods, has she picked up another moon for herself?"

The captain was in dire perplexity.

CHAPTER VIII. VENUS IN PERILOUS PROXIMITY

The light of the returning sun soon extinguished the glory of the stars, and rendered it necessary for the captain to postpone his observations. He had sought in vain for further trace of the huge disc that had so excited his wonder on the 1st, and it seemed most probable that, in its irregular orbit, it had been carried beyond the range of vision.

The weather was still superb. The wind, after veering to the west, had sunk to a perfect calm. Pursuing its inverted course, the sun rose and set with undeviating regularity; and the days and nights were still divided into periods of precisely six hours each--a sure proof that the sun remained close to the new equator which manifestly passed through Gourbi Island.

Meanwhile the temperature was steadily increasing. The captain kept his thermometer close at hand where he could repeatedly consult it, and on the 15th he found that it registered 50 degrees centigrade in the shade.

No attempt had been made to rebuild the gourbi, but the captain and Ben Zoof managed to make up quarters sufficiently comfortable in the principal apartment of the adjoining structure, where the stone walls, that at first afforded a refuge from the torrents of rain, now formed an

equally acceptable shelter from the burning sun. The heat was becoming insufferable, surpassing the heat of Senegal and other equatorial regions; not a cloud ever tempered the intensity of the solar rays; and unless some modification ensued, it seemed inevitable that all vegetation should become scorched and burnt off from the face of the island.

In spite, however, of the profuse perspirations from which he suffered, Ben Zoof, constant to his principles, expressed no surprise at the unwonted heat. No remonstrances from his master could induce him to abandon his watch from the cliff. To withstand the vertical beams of that noontide sun would seem to require a skin of brass and a brain of adamant; but yet, hour after hour, he would remain conscientiously scanning the surface of the Mediterranean, which, calm and deserted, lay outstretched before him. On one occasion, Servadac, in reference to his orderly's indomitable perseverance, happened to remark that he thought he must have been born in the heart of equatorial Africa; to which Ben Zoof replied, with the utmost dignity, that he was born at Montmartre, which was all the same. The worthy fellow was unwilling to own that, even in the matter of heat, the tropics could in any way surpass his own much-loved home.

This unprecedented temperature very soon began to take effect upon the products of the soil. The sap rose rapidly in the trees, so that in the

course of a few days buds, leaves, flowers, and fruit had come to full maturity. It was the same with the cereals; wheat and maize sprouted and ripened as if by magic, and for a while a rank and luxuriant pasturage clothed the meadows. Summer and autumn seemed blended into one. If Captain Servadac had been more deeply versed in astronomy, he would perhaps have been able to bring to bear his knowledge that if the axis of the earth, as everything seemed to indicate, now formed a right angle with the plane of the ecliptic, her various seasons, like those of the planet Jupiter, would become limited to certain zones, in which they would remain invariable. But even if he had understood the rationale of the change, the convulsion that had brought it about would have been as much a mystery as ever.

The precocity of vegetation caused some embarrassment. The time for the corn and fruit harvest had fallen simultaneously with that of the haymaking; and as the extreme heat precluded any prolonged exertions, it was evident "the population" of the island would find it difficult to provide the necessary amount of labor. Not that the prospect gave them much concern: the provisions of the gourbi were still far from exhausted, and now that the roughness of the weather had so happily subsided, they had every encouragement to hope that a ship of some sort would soon appear. Not only was that part of the Mediterranean systematically frequented by the government steamers that watched the coast, but vessels of all nations were constantly cruising off the

shore.

In spite, however, of all their sanguine speculations, no ship appeared. Ben Zoof admitted the necessity of extemporizing a kind of parasol for himself, otherwise he must literally have been roasted to death upon the exposed summit of the cliff.

Meanwhile, Servadac was doing his utmost--it must be acknowledged, with indifferent success--to recall the lessons of his school-days. He would plunge into the wildest speculations in his endeavors to unravel the difficulties of the new situation, and struggled into a kind of conviction that if there had been a change of manner in the earth's rotation on her axis, there would be a corresponding change in her revolution round the sun, which would involve the consequence of the length of the year being either diminished or increased.

Independently of the increased and increasing heat, there was another very conclusive demonstration that the earth had thus suddenly approximated towards the sun. The diameter of the solar disc was now exactly twice what it ordinarily looks to the naked eye; in fact, it was precisely such as it would appear to an observer on the surface of the planet Venus. The most obvious inference would therefore be that the earth's distance from the sun had been diminished from 91,000,000 to 66,000,000 miles. If the just equilibrium of the earth had thus been

destroyed, and should this diminution of distance still continue, would there not be reason to fear that the terrestrial world would be carried onwards to actual contact with the sun, which must result in its total annihilation?

The continuance of the splendid weather afforded Servadac every facility for observing the heavens. Night after night, constellations in their beauty lay stretched before his eyes--an alphabet which, to his mortification, not to say his rage, he was unable to decipher. In the apparent dimensions of the fixed stars, in their distance, in their relative position with regard to each other, he could observe no change. Although it is established that our sun is approaching the constellation of Hercules at the rate of more than 126,000,000 miles a year, and although Arcturus is traveling through space at the rate of fifty-four miles a second--three times faster than the earth goes round the sun,--yet such is the remoteness of those stars that no appreciable change is evident to the senses. The fixed stars taught him nothing.

Far otherwise was it with the planets. The orbits of Venus and Mercury are within the orbit of the earth, Venus rotating at an average distance of 66,130,000 miles from the sun, and Mercury at that of 35,393,000. After pondering long, and as profoundly as he could, upon these figures, Captain Servadac came to the conclusion that, as the earth was now receiving about double the amount of light and heat that it had been

receiving before the catastrophe, it was receiving about the same as the planet Venus; he was driven, therefore, to the estimate of the measure in which the earth must have approximated to the sun, a deduction in which he was confirmed when the opportunity came for him to observe Venus herself in the splendid proportions that she now assumed.

That magnificent planet which--as Phosphorus or Lucifer, Hesperus or Vesper, the evening star, the morning star, or the shepherd's star--has never failed to attract the rapturous admiration of the most indifferent observers, here revealed herself with unprecedented glory, exhibiting all the phases of a lustrous moon in miniature. Various indentations in the outline of its crescent showed that the solar beams were refracted into regions of its surface where the sun had already set, and proved, beyond a doubt, that the planet had an atmosphere of her own; and certain luminous points projecting from the crescent as plainly marked the existence of mountains. As the result of Servadac's computations, he formed the opinion that Venus could hardly be at a greater distance than 6,000,000 miles from the earth.

"And a very safe distance, too," said Ben Zoof, when his master told him the conclusion at which he had arrived.

"All very well for two armies, but for a couple of planets not quite so safe, perhaps, as you may imagine. It is my impression that it is more

than likely we may run foul of Venus," said the captain.

"Plenty of air and water there, sir?" inquired the orderly.

"Yes; as far as I can tell, plenty," replied Servadac.

"Then why shouldn't we go and visit Venus?"

Servadac did his best to explain that as the two planets were of about equal volume, and were traveling with great velocity in opposite directions, any collision between them must be attended with the most disastrous consequences to one or both of them. But Ben Zoof failed to see that, even at the worst, the catastrophe could be much more serious than the collision of two railway trains.

The captain became exasperated. "You idiot!" he angrily exclaimed; "cannot you understand that the planets are traveling a thousand times faster than the fastest express, and that if they meet, either one or the other must be destroyed? What would become of your darling Montmartre then?"

The captain had touched a tender chord. For a moment Ben Zoof stood with clenched teeth and contracted muscles; then, in a voice of real concern, he inquired whether anything could be done to avert the calamity.

"Nothing whatever; so you may go about your own business," was the captain's brusque rejoinder.

All discomfited and bewildered, Ben Zoof retired without a word.

During the ensuing days the distance between the two planets continued to decrease, and it became more and more obvious that the earth, on her new orbit, was about to cross the orbit of Venus. Throughout this time the earth had been making a perceptible approach towards Mercury, and that planet--which is rarely visible to the naked eye, and then only at what are termed the periods of its greatest eastern and western elongations--now appeared in all its splendor. It amply justified the epithet of "sparkling" which the ancients were accustomed to confer upon it, and could scarcely fail to awaken a new interest. The periodic recurrence of its phases; its reflection of the sun's rays, shedding upon it a light and a heat seven times greater than that received by the earth; its glacial and its torrid zones, which, on account of the great inclination of the axis, are scarcely separable; its equatorial bands; its mountains eleven miles high;--were all subjects of observation worthy of the most studious regard.

But no danger was to be apprehended from Mercury; with Venus only did collision appear imminent. By the 18th of January the distance between

that planet and the earth had become reduced to between two and three millions of miles, and the intensity of its light cast heavy shadows from all terrestrial objects. It might be observed to turn upon its own axis in twenty-three hours twenty-one minutes--an evidence, from the unaltered duration of its days, that the planet had not shared in the disturbance. On its disc the clouds formed from its atmospheric vapor were plainly perceptible, as also were the seven spots, which, according to Bianchini, are a chain of seas. It was now visible in broad daylight. Buonaparte, when under the Directory, once had his attention called to Venus at noon, and immediately hailed it joyfully, recognizing it as his own peculiar star in the ascendant. Captain Servadac, it may well be imagined, did not experience the same gratifying emotion.

On the 20th, the distance between the two bodies had again sensibly diminished. The captain had ceased to be surprised that no vessel had been sent to rescue himself and his companion from their strange imprisonment; the governor general and the minister of war were doubtless far differently occupied, and their interests far otherwise engrossed. What sensational articles, he thought, must now be teeming to the newspapers! What crowds must be flocking to the churches! The end of the world approaching! the great climax close at hand! Two days more, and the earth, shivered into a myriad atoms, would be lost in boundless space!

These dire forebodings, however, were not destined to be realized. Gradually the distance between the two planets began to increase; the planes of their orbits did not coincide, and accordingly the dreaded catastrophe did not ensue. By the 25th, Venus was sufficiently remote to preclude any further fear of collision. Ben Zoof gave a sigh of relief when the captain communicated the glad intelligence.

Their proximity to Venus had been close enough to demonstrate that beyond a doubt that planet has no moon or satellite such as Cassini, Short, Montaigne of Limoges, Montbarron, and some other astronomers have imagined to exist. "Had there been such a satellite," said Servadac, "we might have captured it in passing. But what can be the meaning," he added seriously, "of all this displacement of the heavenly bodies?"

"What is that great building at Paris, captain, with a top like a cap?" asked Ben Zoof.

"Do you mean the Observatory?"

"Yes, the Observatory. Are there not people living in the Observatory who could explain all this?"

"Very likely; but what of that?"

"Let us be philosophers, and wait patiently until we can hear their explanation."

Servadac smiled. "Do you know what it is to be a philosopher, Ben Zoof?" he asked.

"I am a soldier, sir," was the servant's prompt rejoinder, "and I have learnt to know that 'what can't be cured must be endured.'"

The captain made no reply, but for a time, at least, he desisted from puzzling himself over matters which he felt he was utterly incompetent to explain. But an event soon afterwards occurred which awakened his keenest interest.

About nine o'clock on the morning of the 27th, Ben Zoof walked deliberately into his master's apartment, and, in reply to a question as to what he wanted, announced with the utmost composure that a ship was in sight.

"A ship!" exclaimed Servadac, starting to his feet. "A ship! Ben Zoof, you donkey! you speak as unconcernedly as though you were telling me that my dinner was ready."

"Are we not philosophers, captain?" said the orderly.

But the captain was out of hearing.

CHAPTER IX. INQUIRIES UNSATISFIED

Fast as his legs could carry him, Servadac had made his way to the top of the cliff. It was quite true that a vessel was in sight, hardly more than six miles from the shore; but owing to the increase in the earth's convexity, and the consequent limitation of the range of vision, the rigging of the topmasts alone was visible above the water. This was enough, however, to indicate that the ship was a schooner--an impression that was confirmed when, two hours later, she came entirely in sight.

"The Dobryna!" exclaimed Servadac, keeping his eye unmoved at his telescope.

"Impossible, sir!" rejoined Ben Zoof; "there are no signs of smoke."

"The Dobryna!" repeated the captain, positively. "She is under sail; but she is Count Timascheff's yacht."

He was right. If the count were on board, a strange fatality was bringing him to the presence of his rival. But no longer now could Servadac regard him in the light of an adversary; circumstances had changed, and all animosity was absorbed in the eagerness with which he hailed the prospect of obtaining some information about the recent

startling and inexplicable events. During the twenty-seven days that she had been absent, the Dobryna, he conjectured, would have explored the Mediterranean, would very probably have visited Spain, France, or Italy, and accordingly would convey to Gourbi Island some intelligence from one or other of those countries. He reckoned, therefore, not only upon ascertaining the extent of the late catastrophe, but upon learning its cause. Count Timascheff was, no doubt, magnanimously coming to the rescue of himself and his orderly.

The wind being adverse, the Dobryna did not make very rapid progress; but as the weather, in spite of a few clouds, remained calm, and the sea was quite smooth, she was enabled to hold a steady course. It seemed unaccountable that she should not use her engine, as whoever was on board, would be naturally impatient to reconnoiter the new island, which must just have come within their view. The probability that suggested itself was that the schooner's fuel was exhausted.

Servadac took it for granted that the Dobryna was endeavoring to put in. It occurred to him, however, that the count, on discovering an island where he had expected to find the mainland of Africa, would not unlikely be at a loss for a place of anchorage. The yacht was evidently making her way in the direction of the former mouth of the Shelif, and the captain was struck with the idea that he would do well to investigate whether there was any suitable mooring towards which he

might signal her. Zephyr and Galette were soon saddled, and in twenty minutes had carried their riders to the western extremity of the island, where they both dismounted and began to explore the coast.

They were not long in ascertaining that on the farther side of the point there was a small well-sheltered creek of sufficient depth to accommodate a vessel of moderate tonnage. A narrow channel formed a passage through the ridge of rocks that protected it from the open sea, and which, even in the roughest weather, would ensure the calmness of its waters.

Whilst examining the rocky shore, the captain observed, to his great surprise, long and well-defined rows of seaweed, which undoubtedly betokened that there had been a very considerable ebb and flow of the waters--a thing unknown in the Mediterranean, where there is scarcely any perceptible tide. What, however, seemed most remarkable, was the manifest evidence that ever since the highest flood (which was caused, in all probability, by the proximity of the body of which the huge disc had been so conspicuous on the night of the 31st of December) the phenomenon had been gradually lessening, and in fact was now reduced to the normal limits which had characterized it before the convulsion.

Without doing more than note the circumstance, Servadac turned his entire attention to the Dobryna, which, now little more than a mile

from shore, could not fail to see and understand his signals. Slightly changing her course, she first struck her mainsail, and, in order to facilitate the movements of her helmsman, soon carried nothing but her two topsails, brigantine and jib. After rounding the peak, she steered direct for the channel to which Servadac by his gestures was pointing her, and was not long in entering the creek. As soon as the anchor, imbedded in the sandy bottom, had made good its hold, a boat was lowered. In a few minutes more Count Timascheff had landed on the island. Captain Servadac hastened towards him.

"First of all, count," he exclaimed impetuously, "before we speak one other word, tell me what has happened."

The count, whose imperturbable composure presented a singular contrast to the French officer's enthusiastic vivacity, made a stiff bow, and in his Russian accent replied: "First of all, permit me to express my surprise at seeing you here. I left you on a continent, and here I have the honor of finding you on an island."

"I assure you, count, I have never left the place."

"I am quite aware of it. Captain Servadac, and I now beg to offer you my sincere apologies for failing to keep my appointment with you."

"Never mind, now," interposed the captain; "we will talk of that by-and-by. First, tell me what has happened."

"The very question I was about to put to you, Captain Servadac."

"Do you mean to say you know nothing of the cause, and can tell me nothing of the extent, of the catastrophe which has transformed this part of Africa into an island?"

"Nothing more than you know yourself."

"But surely, Count Timascheff, you can inform me whether upon the northern shore of the Mediterranean--"

"Are you certain that this is the Mediterranean?" asked the count significantly, and added, "I have discovered no sign of land."

The captain stared in silent bewilderment. For some moments he seemed perfectly stupefied; then, recovering himself, he began to overwhelm the count with a torrent of questions. Had he noticed, ever since the 1st of January, that the sun had risen in the west? Had he noticed that the days had been only six hours long, and that the weight of the atmosphere was so much diminished? Had he observed that the moon had quite disappeared, and that the earth had been in imminent hazard of running

foul of the planet Venus? Was he aware, in short, that the entire motions of the terrestrial sphere had undergone a complete modification? To all these inquiries, the count responded in the affirmative. He was acquainted with everything that had transpired; but, to Servadac's increasing astonishment, he could throw no light upon the cause of any of the phenomena.

"On the night of the 31st of December," he said, "I was proceeding by sea to our appointed place of meeting, when my yacht was suddenly caught on the crest of an enormous wave, and carried to a height which it is beyond my power to estimate. Some mysterious force seemed to have brought about a convulsion of the elements. Our engine was damaged, nay disabled, and we drifted entirely at the mercy of the terrible hurricane that raged during the succeeding days. That the Dobryna escaped at all is little less than a miracle, and I can only attribute her safety to the fact that she occupied the center of the vast cyclone, and consequently did not experience much change of position."

He paused, and added: "Your island is the first land we have seen."

"Then let us put out to sea at once and ascertain the extent of the disaster," cried the captain, eagerly. "You will take me on board, count, will you not?"

"My yacht is at your service, sir, even should you require to make a tour round the world."

"A tour round the Mediterranean will suffice for the present, I think," said the captain, smiling.

The count shook his head.

"I am not sure," said he, "but what the tour of the Mediterranean will prove to be the tour of the world."

Servadac made no reply, but for a time remained silent and absorbed in thought.

After the silence was broken, they consulted as to what course was best to pursue; and the plan they proposed was, in the first place, to discover how much of the African coast still remained, and to carry on the tidings of their own experiences to Algiers; or, in the event of the southern shore having actually disappeared, they would make their way northwards and put themselves in communication with the population on the river banks of Europe.

Before starting, it was indispensable that the engine of the Dobryna should be repaired: to sail under canvas only would in contrary winds

and rough seas be both tedious and difficult. The stock of coal on board was adequate for two months' consumption; but as it would at the expiration of that time be exhausted, it was obviously the part of prudence to employ it in reaching a port where fuel could be replenished.

The damage sustained by the engine proved to be not very serious; and in three days after her arrival the Dobryna was again ready to put to sea.

Servadac employed the interval in making the count acquainted with all he knew about his small domain. They made an entire circuit of the island, and both agreed that it must be beyond the limits of that circumscribed territory that they must seek an explanation of what had so strangely transpired.

It was on the last day of January that the repairs of the schooner were completed. A slight diminution in the excessively high temperature which had prevailed for the last few weeks, was the only apparent change in the general order of things; but whether this was to be attributed to any alteration in the earth's orbit was a question which would still require several days to decide. The weather remained fine, and although a few clouds had accumulated, and might have caused a trifling fall of the barometer, they were not sufficiently threatening to delay the

departure of the Dobryna.

Doubts now arose, and some discussion followed, whether or not it was desirable for Ben Zoof to accompany his master. There were various reasons why he should be left behind, not the least important being that the schooner had no accommodation for horses, and the orderly would have found it hard to part with Zephyr, and much more with his own favorite Galette; besides, it was advisable that there should be some one left to receive any strangers that might possibly arrive, as well as to keep an eye upon the herds of cattle which, in the dubious prospect before them, might prove to be the sole resource of the survivors of the catastrophe. Altogether, taking into consideration that the brave fellow would incur no personal risk by remaining upon the island, the captain was induced with much reluctance to forego the attendance of his servant, hoping very shortly to return and to restore him to his country, when he had ascertained the reason of the mysteries in which they were enveloped.

On the 31st, then, Ben Zoof was "invested with governor's powers," and took an affecting leave of his master, begging him, if chance should carry him near Montmartre, to ascertain whether the beloved "mountain" had been left unmoved.

Farewells over, the Dobryna was carefully steered through the creek, and was soon upon the open sea.

CHAPTER X. A SEARCH FOR ALGERIA

The Dobryna, a strong craft of 200 tons burden, had been built in the famous shipbuilding yards in the Isle of Wight. Her sea going qualities were excellent, and would have amply sufficed for a circumnavigation of the globe. Count Timascheff was himself no sailor, but had the greatest confidence in leaving the command of his yacht in the hands of Lieutenant Procope, a man of about thirty years of age, and an excellent seaman. Born on the count's estates, the son of a serf who had been emancipated long before the famous edict of the Emperor Alexander, Procope was sincerely attached, by a tie of gratitude as well as of duty and affection, to his patron's service. After an apprenticeship on a merchant ship he had entered the imperial navy, and had already reached the rank of lieutenant when the count appointed him to the charge of his own private yacht, in which he was accustomed to spend by far the greater part of his time, throughout the winter generally cruising in the Mediterranean, whilst in the summer he visited more northern waters.

The ship could not have been in better hands. The lieutenant was well informed in many matters outside the pale of his profession, and his attainments were alike creditable to himself and to the liberal friend who had given him his education. He had an excellent crew, consisting of Tiglew the engineer, four sailors named Niegoch, Tolstoy, Etkef, and

Panofka, and Mochel the cook. These men, without exception, were all sons of the count's tenants, and so tenaciously, even out at sea, did they cling to their old traditions, that it mattered little to them what physical disorganization ensued, so long as they felt they were sharing the experiences of their lord and master. The late astounding events, however, had rendered Procope manifestly uneasy, and not the less so from his consciousness that the count secretly partook of his own anxiety.

Steam up and canvas spread, the schooner started eastwards. With a favorable wind she would certainly have made eleven knots an hour had not the high waves somewhat impeded her progress. Although only a moderate breeze was blowing, the sea was rough, a circumstance to be accounted for only by the diminution in the force of the earth's attraction rendering the liquid particles so buoyant, that by the mere effect of oscillation they were carried to a height that was quite unprecedented. M. Arago has fixed twenty-five or twenty-six feet as the maximum elevation ever attained by the highest waves, and his astonishment would have been very great to see them rising fifty or even sixty feet. Nor did these waves in the usual way partially unfurl themselves and rebound against the sides of the vessel; they might rather be described as long undulations carrying the schooner (its weight diminished from the same cause as that of the water) alternately to such heights and depths, that if Captain Servadac had been subject to

seasickness he must have found himself in sorry plight. As the pitching, however, was the result of a long uniform swell, the yacht did not labor much harder than she would against the ordinary short strong waves of the Mediterranean; the main inconvenience that was experienced was the diminution in her proper rate of speed.

For a few miles she followed the line hitherto presumably occupied by the coast of Algeria; but no land appeared to the south. The changed positions of the planets rendered them of no avail for purposes of nautical observation, nor could Lieutenant Procope calculate his latitude and longitude by the altitude of the sun, as his reckonings would be useless when applied to charts that had been constructed for the old order of things; but nevertheless, by means of the log, which gave him the rate of progress, and by the compass which indicated the direction in which they were sailing, he was able to form an estimate of his position that was sufficiently free from error for his immediate need.

Happily the recent phenomena had no effect upon the compass; the magnetic needle, which in these regions had pointed about 22 degrees from the north pole, had never deviated in the least--a proof that, although east and west had apparently changed places, north and south continued to retain their normal position as cardinal points. The log and the compass, therefore, were able to be called upon to do the work

of the sextant, which had become utterly useless.

On the first morning of the cruise Lieutenant Procope, who, like most Russians, spoke French fluently, was explaining these peculiarities to Captain Servadac; the count was present, and the conversation perpetually recurred, as naturally it would, to the phenomena which remained so inexplicable to them all.

"It is very evident," said the lieutenant, "that ever since the 1st of January the earth has been moving in a new orbit, and from some unknown cause has drawn nearer to the sun."

"No doubt about that," said Servadac; "and I suppose that, having crossed the orbit of Venus, we have a good chance of running into the orbit of Mercury."

"And finish up by a collision with the sun!" added the count.

"There is no fear of that, sir. The earth has undoubtedly entered upon a new orbit, but she is not incurring any probable risk of being precipitated onto the sun."

"Can you satisfy us of that?" asked the count.

"I can, sir. I can give you a proof which I think you will own is conclusive. If, as you suppose, the earth is being drawn on so as to be precipitated against the sun, the great center of attraction of our system, it could only be because the centrifugal and centripetal forces that cause the planets to rotate in their several orbits had been entirely suspended: in that case, indeed, the earth would rush onwards towards the sun, and in sixty-four days and a half the catastrophe you dread would inevitably happen."

"And what demonstration do you offer," asked Servadac eagerly, "that it will not happen?"

"Simply this, captain: that since the earth entered her new orbit half the sixty-four days has already elapsed, and yet it is only just recently that she has crossed the orbit of Venus, hardly one-third of the distance to be traversed to reach the sun."

The lieutenant paused to allow time for reflection, and added: "Moreover, I have every reason to believe that we are not so near the sun as we have been. The temperature has been gradually diminishing; the heat upon Gourbi Island is not greater now than we might ordinarily expect to find in Algeria. At the same time, we have the problem still unsolved that the Mediterranean has evidently been transported to the equatorial zone."

Both the count and the captain expressed themselves reassured by his representations, and observed that they must now do all in their power to discover what had become of the vast continent of Africa, of which, they were hitherto failing so completely to find a vestige.

Twenty-four hours after leaving the island, the Dobryna had passed over the sites where Tenes, Cherchil, Koleah, and Sidi-Feruch once had been, but of these towns not one appeared within range of the telescope. Ocean reigned supreme. Lieutenant Procope was absolutely certain that he had not mistaken his direction; the compass showed that the wind had never shifted from the west, and this, with the rate of speed as estimated by the log, combined to assure him that at this date, the 2d of February, the schooner was in lat. 36 degrees 49 min N. and long. 3 degrees 25 min E., the very spot which ought to have been occupied by the Algerian capital. But Algiers, like all the other coast-towns, had apparently been absorbed into the bowels of the earth.

Captain Servadac, with clenched teeth and knitted brow, stood sternly, almost fiercely, regarding the boundless waste of water. His pulse beat fast as he recalled the friends and comrades with whom he had spent the last few years in that vanished city. All the images of his past life floated upon his memory; his thoughts sped away to his native France, only to return again to wonder whether the depths of ocean would reveal

any traces of the Algerian metropolis.

"Is it not impossible," he murmured aloud, "that any city should disappear so completely? Would not the loftiest eminences of the city at least be visible? Surely some portion of the Casbah must still rise above the waves? The imperial fort, too, was built upon an elevation of 750 feet; it is incredible that it should be so totally submerged. Unless some vestiges of these are found, I shall begin to suspect that the whole of Africa has been swallowed in some vast abyss."

Another circumstance was most remarkable. Not a material object of any kind was to be noticed floating on the surface of the water; not one branch of a tree had been seen drifting by, nor one spar belonging to one of the numerous vessels that a month previously had been moored in the magnificent bay which stretched twelve miles across from Cape Matafuz to Point Pexade. Perhaps the depths might disclose what the surface failed to reveal, and Count Timascheff, anxious that Servadac should have every facility afforded him for solving his doubts, called for the sounding-line. Forthwith, the lead was greased and lowered. To the surprise of all, and especially of Lieutenant Procope, the line indicated a bottom at a nearly uniform depth of from four to five fathoms; and although the sounding was persevered with continuously for more than two hours over a considerable area, the differences of level were insignificant, not corresponding in any degree to what would be

expected over the site of a city that had been terraced like the seats of an amphitheater. Astounding as it seemed, what alternative was left but to suppose that the Algerian capital had been completely leveled by the flood?

The sea-bottom was composed of neither rock, mud, sand, nor shells; the sounding-lead brought up nothing but a kind of metallic dust, which glittered with a strange iridescence, and the nature of which it was impossible to determine, as it was totally unlike what had ever been known to be raised from the bed of the Mediterranean.

"You must see, lieutenant, I should think, that we are not so near the coast of Algeria as you imagined."

The lieutenant shook his head. After pondering awhile, he said: "If we were farther away I should expect to find a depth of two or three hundred fathoms instead of five fathoms. Five fathoms! I confess I am puzzled."

For the next thirty-six hours, until the 4th of February, the sea was examined and explored with the most unflagging perseverance. Its depth remained invariable, still four, or at most five, fathoms; and although its bottom was assiduously dredged, it was only to prove it barren of marine production of any type.

The yacht made its way to lat. 36 degrees, and by reference to the charts it was tolerably certain that she was cruising over the site of the Sahel, the ridge that had separated the rich plain of the Mitidja from the sea, and of which the highest peak, Mount Boujereah, had reached an altitude of 1,200 feet; but even this peak, which might have been expected to emerge like an islet above the surface of the sea, was nowhere to be traced. Nothing was to be done but to put about, and return in disappointment towards the north.

Thus the Dobryna regained the waters of the Mediterranean without discovering a trace of the missing province of Algeria.

CHAPTER XI. AN ISLAND TOMB

No longer, then, could there be any doubt as to the annihilation of a considerable portion of the colony. Not merely had there been a submersion of the land, but the impression was more and more confirmed that the very bowels of the earth must have yawned and closed again upon a large territory. Of the rocky substratum of the province it became more evident than ever that not a trace remained, and a new soil of unknown formation had certainly taken the place of the old sandy sea-bottom. As it altogether transcended the powers of those on board to elucidate the origin of this catastrophe, it was felt to be incumbent on them at least to ascertain its extent.

After a long and somewhat wavering discussion, it was at length decided that the schooner should take advantage of the favorable wind and weather, and proceed at first towards the east, thus following the outline of what had formerly represented the coast of Africa, until that coast had been lost in boundless sea.

Not a vestige of it all remained; from Cape Matafuz to Tunis it had all gone, as though it had never been. The maritime town of Dellis, built like Algiers, amphitheater-wise, had totally disappeared; the highest points were quite invisible; not a trace on the horizon was left of the

Jurjura chain, the topmost point of which was known to have an altitude of more than 7,000 feet.

Unsparing of her fuel, the Dobryna made her way at full steam towards Cape Blanc. Neither Cape Negro nor Cape Serrat was to be seen. The town of Bizerta, once charming in its oriental beauty, had vanished utterly; its marabouts, or temple-tombs, shaded by magnificent palms that fringed the gulf, which by reason of its narrow mouth had the semblance of a lake, all had disappeared, giving place to a vast waste of sea, the transparent waves of which, as still demonstrated by the sounding-line, had ever the same uniform and arid bottom.

In the course of the day the schooner rounded the point where, five weeks previously, Cape Blanc had been so conspicuous an object, and she was now stemming the waters of what once had been the Bay of Tunis. But bay there was none, and the town from which it had derived its name, with the Arsenal, the Goletta, and the two peaks of Bou-Kournein, had all vanished from the view. Cape Bon, too, the most northern promontory of Africa and the point of the continent nearest to the island of Sicily, had been included in the general devastation.

Before the occurrence of the recent prodigy, the bottom of the Mediterranean just at this point had formed a sudden ridge across the Straits of Libya. The sides of the ridge had shelved to so great an

extent that, while the depth of water on the summit had been little more than eleven fathoms, that on either hand of the elevation was little short of a hundred fathoms. A formation such as this plainly indicated that at some remote epoch Cape Bon had been connected with Cape Furina, the extremity of Sicily, in the same manner as Ceuta has doubtless been connected with Gibraltar.

Lieutenant Procope was too well acquainted with the Mediterranean to be unaware of this peculiarity, and would not lose the opportunity of ascertaining whether the submarine ridge still existed, or whether the sea-bottom between Sicily and Africa had undergone any modification.

Both Timascheff and Servadac were much interested in watching the operations. At a sign from the lieutenant, a sailor who was stationed at the foot of the fore-shrouds dropped the sounding-lead into the water, and in reply to Procope's inquiries, reported--"Five fathoms and a flat bottom."

The next aim was to determine the amount of depression on either side of the ridge, and for this purpose the Dobryna was shifted for a distance of half a mile both to the right and left, and the soundings taken at each station. "Five fathoms and a flat bottom," was the unvaried announcement after each operation. Not only, therefore, was it evident that the submerged chain between Cape Bon and Cape Furina no longer

existed, but it was equally clear that the convulsion had caused a general leveling of the sea-bottom, and that the soil, degenerated, as it has been said, into a metallic dust of unrecognized composition, bore no trace of the sponges, sea-anemones, star-fish, sea-nettles, hydrophytes, and shells with which the submarine rocks of the Mediterranean had hitherto been prodigally clothed.

The Dobryna now put about and resumed her explorations in a southerly direction. It remained, however, as remarkable as ever how completely throughout the voyage the sea continued to be deserted; all expectations of hailing a vessel bearing news from Europe were entirely falsified, so that more and more each member of the crew began to be conscious of his isolation, and to believe that the schooner, like a second Noah's ark, carried the sole survivors of a calamity that had overwhelmed the earth.

On the 9th of February the Dobryna passed over the site of the city of Dido, the ancient Byrsa--a Carthage, however, which was now more completely destroyed than ever Punic Carthage had been destroyed by Scipio Africanus or Roman Carthage by Hassan the Saracen.

In the evening, as the sun was sinking below the eastern horizon, Captain Servadac was lounging moodily against the taffrail. From the heaven above, where stars kept peeping fitfully from behind the moving clouds, his eye wandered mechanically to the waters below, where the

long waves were rising and falling with the evening breeze.

All at once, his attention was arrested by a luminous speck straight ahead on the southern horizon. At first, imagining that he was the victim of some spectral illusion, he observed it with silent attention; but when, after some minutes, he became convinced that what he saw was actually a distant light, he appealed to one of the sailors, by whom his impression was fully corroborated. The intelligence was immediately imparted to Count Timascheff and the lieutenant.

"Is it land, do you suppose?" inquired Servadac, eagerly.

"I should be more inclined to think it is a light on board some ship," replied the count.

"Whatever it is, in another hour we shall know all about it," said Servadac.

"No, captain," interposed Lieutenant Procope; "we shall know nothing until to-morrow."

"What! not bear down upon it at once?" asked the count in surprise.

"No, sir; I should much rather lay to and wait till daylight. If we are

really near land, I should be afraid to approach it in the dark."

The count expressed his approval of the lieutenant's caution, and thereupon all sail was shortened so as to keep the Dobryna from making any considerable progress all through the hours of night. Few as those hours were, they seemed to those on board as if their end would never come. Fearful lest the faint glimmer should at any moment cease to be visible, Hector Servadac did not quit his post upon the deck; but the light continued unchanged. It shone with about the same degree of luster as a star of the second magnitude, and from the fact of its remaining stationary, Procope became more and more convinced that it was on land and did not belong to a passing vessel.

At sunrise every telescope was pointed with keenest interest towards the center of attraction. The light, of course, had ceased to be visible, but in the direction where it had been seen, and at a distance of about ten miles, there was the distinct outline of a solitary island of very small extent; rather, as the count observed, it had the appearance of being the projecting summit of a mountain all but submerged. Whatever it was, it was agreed that its true character must be ascertained, not only to gratify their own curiosity, but for the benefit of all future navigators. The schooner accordingly was steered directly towards it, and in less than an hour had cast anchor within a few cables' lengths of the shore.

The little island proved to be nothing more than an arid rock rising abruptly about forty feet above the water. It had no outlying reefs, a circumstance that seemed to suggest the probability that in the recent convulsion it had sunk gradually, until it had reached its present position of equilibrium.

Without removing his eye from his telescope, Servadac exclaimed: "There is a habitation on the place; I can see an erection of some kind quite distinctly. Who can tell whether we shall not come across a human being?"

Lieutenant Procope looked doubtful. The island had all the appearance of being deserted, nor did a cannon-shot fired from the schooner have the effect of bringing any resident to the shore. Nevertheless, it was undeniable that there was a stone building situated on the top of the rock, and that this building had much the character of an Arabian mosque.

The boat was lowered and manned by the four sailors; Servadac, Timascheff and Procope were quickly rowed ashore, and lost no time in commencing their ascent of the steep acclivity. Upon reaching the summit, they found their progress arrested by a kind of wall, or rampart of singular construction, its materials consisting mainly of vases,

fragments of columns, carved bas-reliefs, statues, and portions of broken stelae, all piled promiscuously together without any pretense to artistic arrangement. They made their way into the enclosure, and finding an open door, they passed through and soon came to a second door, also open, which admitted them to the interior of the mosque, consisting of a single chamber, the walls of which were ornamented in the Arabian style by sculptures of indifferent execution. In the center was a tomb of the very simplest kind, and above the tomb was suspended a large silver lamp with a capacious reservoir of oil, in which floated a long lighted wick, the flame of which was evidently the light that had attracted Servadac's attention on the previous night.

"Must there not have been a custodian of the shrine?" they mutually asked; but if such there had ever been, he must, they concluded, either have fled or have perished on that eventful night. Not a soul was there in charge, and the sole living occupants were a flock of wild cormorants which, startled at the entrance of the intruders, rose on wing, and took a rapid flight towards the south.

An old French prayer-book was lying on the corner of the tomb; the volume was open, and the page exposed to view was that which contained the office for the celebration of the 25th of August. A sudden revelation dashed across Servadac's mind. The solemn isolation of the island tomb, the open breviary, the ritual of the ancient anniversary,

all combined to apprise him of the sanctity of the spot upon which he stood.

"The tomb of St. Louis!" he exclaimed, and his companions involuntarily followed his example, and made a reverential obeisance to the venerated monument.

It was, in truth, the very spot on which tradition asserts that the canonized monarch came to die, a spot to which for six centuries and more his countrymen had paid the homage of a pious regard. The lamp that had been kindled at the memorial shrine of a saint was now in all probability the only beacon that threw a light across the waters of the Mediterranean, and even this ere long must itself expire.

There was nothing more to explore. The three together quitted the mosque, and descended the rock to the shore, whence their boat re-conveyed them to the schooner, which was soon again on her southward voyage; and it was not long before the tomb of St. Louis, the only spot that had survived the mysterious shock, was lost to view.

CHAPTER XII. AT THE MERCY OF THE WINDS

As the affrighted cormorants had winged their flight towards the south, there sprang up a sanguine hope on board the schooner that land might be discovered in that direction. Thither, accordingly, it was determined to proceed, and in a few hours after quitting the island of the tomb, the Dobryna was traversing the shallow waters that now covered the peninsula of Dakhul, which had separated the Bay of Tunis from the Gulf of Hammamet. For two days she continued an undeviating course, and after a futile search for the coast of Tunis, reached the latitude of 34 degrees.

Here, on the 11th of February, there suddenly arose the cry of "Land!" and in the extreme horizon, right ahead, where land had never been before, it was true enough that a shore was distinctly to be seen. What could it be? It could not be the coast of Tripoli; for not only would that low-lying shore be quite invisible at such a distance, but it was certain, moreover, that it lay two degrees at least still further south. It was soon observed that this newly discovered land was of very irregular elevation, that it extended due east and west across the horizon, thus dividing the gulf into two separate sections and completely concealing the island of Jerba, which must lie behind. Its position was duly traced on the Dobryna's chart.

"How strange," exclaimed Hector Servadac, "that after sailing all this time over sea where we expected to find land, we have at last come upon land where we thought to find sea!"

"Strange, indeed," replied Lieutenant Procope; "and what appears to me almost as remarkable is that we have never once caught sight either of one of the Maltese tartans or one of the Levantine xebecs that traffic so regularly on the Mediterranean."

"Eastwards or westwards," asked the count--"which shall be our course? All farther progress to the south is checked."

"Westwards, by all means," replied Servadac quickly. "I am longing to know whether anything of Algeria is left beyond the Shelif; besides, as we pass Gourbi Island we might take Ben Zoof on board, and then make away for Gibraltar, where we should be sure to learn something, at least, of European news."

With his usual air of stately courtesy, Count Timascheff begged the captain to consider the yacht at his own disposal, and desired him to give the lieutenant instructions accordingly.

Lieutenant Procope, however, hesitated, and after revolving matters for a few moments in his mind, pointed out that as the wind was blowing

directly from the west, and seemed likely to increase, if they went to the west in the teeth of the weather, the schooner would be reduced to the use of her engine only, and would have much difficulty in making any headway; on the other hand, by taking an eastward course, not only would they have the advantage of the wind, but, under steam and canvas, might hope in a few days to be off the coast of Egypt, and from Alexandria or some other port they would have the same opportunity of getting tidings from Europe as they would at Gibraltar.

Intensely anxious as he was to revisit the province of Oran, and eager, too, to satisfy himself of the welfare of his faithful Ben Zoof, Servadac could not but own the reasonableness of the lieutenant's objections, and yielded to the proposal that the eastward course should be adopted. The wind gave signs only too threatening of the breeze rising to a gale; but, fortunately, the waves did not culminate in breakers, but rather in a long swell which ran in the same direction as the vessel.

During the last fortnight the high temperature had been gradually diminishing, until it now reached an average of 20 degrees Cent. (or 68 degrees Fahr.), and sometimes descended as low as 15 degrees. That this diminution was to be attributed to the change in the earth's orbit was a question that admitted of little doubt. After approaching so near to the sun as to cross the orbit of Venus, the earth must now have receded

so far from the sun that its normal distance of ninety-one millions of miles was greatly increased, and the probability was great that it was approximating to the orbit of Mars, that planet which in its physical constitution most nearly resembles our own. Nor was this supposition suggested merely by the lowering of the temperature; it was strongly corroborated by the reduction of the apparent diameter of the sun's disc to the precise dimensions which it would assume to an observer actually stationed on the surface of Mars. The necessary inference that seemed to follow from these phenomena was that the earth had been projected into a new orbit, which had the form of a very elongated ellipse.

Very slight, however, in comparison was the regard which these astronomical wonders attracted on board the Dobryna. All interest there was too much absorbed in terrestrial matters, and in ascertaining what changes had taken place in the configuration of the earth itself, to permit much attention to be paid to its erratic movements through space.

The schooner kept bravely on her way, but well out to sea, at a distance of two miles from land. There was good need of this precaution, for so precipitous was the shore that a vessel driven upon it must inevitably have gone to pieces; it did not offer a single harbor of refuge, but, smooth and perpendicular as the walls of a fortress, it rose to a height of two hundred, and occasionally of three hundred feet. The waves dashed

violently against its base. Upon the general substratum rested a massive conglomerate, the crystallizations of which rose like a forest of gigantic pyramids and obelisks.

But what struck the explorers more than anything was the appearance of singular newness that pervaded the whole of the region. It all seemed so recent in its formation that the atmosphere had had no opportunity of producing its wonted effect in softening the hardness of its lines, in rounding the sharpness of its angles, or in modifying the color of its surface; its outline was clearly marked against the sky, and its substance, smooth and polished as though fresh from a founder's mold, glittered with the metallic brilliancy that is characteristic of pyrites. It seemed impossible to come to any other conclusion but that the land before them, continent or island, had been upheaved by subterranean forces above the surface of the sea, and that it was mainly composed of the same metallic element as had characterized the dust so frequently uplifted from the bottom.

The extreme nakedness of the entire tract was likewise very extraordinary. Elsewhere, in various quarters of the globe, there may be sterile rocks, but there are none so adamant as to be altogether unfurrowed by the filaments engendered in the moist residuum of the condensed vapor; elsewhere there may be barren steeps, but none so rigid as not to afford some hold to vegetation, however low and elementary

may be its type; but here all was bare, and blank, and desolate--not a symptom of vitality was visible.

Such being the condition of the adjacent land, it could hardly be a matter of surprise that all the sea-birds, the albatross, the gull, the sea-mew, sought continual refuge on the schooner; day and night they perched fearlessly upon the yards, the report of a gun failing to dislodge them, and when food of any sort was thrown upon the deck, they would dart down and fight with eager voracity for the prize. Their extreme avidity was recognized as a proof that any land where they could obtain a sustenance must be far remote.

Onwards thus for several days the Dobryna followed the contour of the inhospitable coast, of which the features would occasionally change, sometimes for two or three miles assuming the form of a simple arris, sharply defined as though cut by a chisel, when suddenly the prismatic lamellae soaring in rugged confusion would again recur; but all along there was the same absence of beach or tract of sand to mark its base, neither were there any of those shoals of rock that are ordinarily found in shallow water. At rare intervals there were some narrow fissures, but not a creek available for a ship to enter to replenish its supply of water; and the wide roadsteads were unprotected and exposed to well-nigh every point of the compass.

But after sailing two hundred and forty miles, the progress of the Dobryna was suddenly arrested. Lieutenant Procope, who had sedulously inserted the outline of the newly revealed shore upon the maps, announced that it had ceased to run east and west, and had taken a turn due north, thus forming a barrier to their continuing their previous direction. It was, of course, impossible to conjecture how far this barrier extended; it coincided pretty nearly with the fourteenth meridian of east longitude; and if it reached, as probably it did, beyond Sicily to Italy, it was certain that the vast basin of the Mediterranean, which had washed the shores alike of Europe, Asia, and Africa, must have been reduced to about half its original area.

It was resolved to proceed upon the same plan as heretofore, following the boundary of the land at a safe distance. Accordingly, the head of the Dobryna was pointed north, making straight, as it was presumed, for the south of Europe. A hundred miles, or somewhat over, in that direction, and it was to be anticipated she would come in sight of Malta, if only that ancient island, the heritage in succession of Phoenicians, Carthaginians, Sicilians, Romans, Vandals, Greeks, Arabians, and the knights of Rhodes, should still be undestroyed.

But Malta, too, was gone; and when, upon the 14th, the sounding-line was dropped upon its site, it was only with the same result so oftentimes obtained before.

"The devastation is not limited to Africa," observed the count.

"Assuredly not," assented the lieutenant; adding, "and I confess I am almost in despair whether we shall ever ascertain its limits. To what quarter of Europe, if Europe still exists, do you propose that I should now direct your course?"

"To Sicily, Italy, France!" ejaculated Servadac, eagerly,--"anywhere where we can learn the truth of what has befallen us."

"How if we are the sole survivors?" said the count, gravely.

Hector Servadac was silent; his own secret presentiment so thoroughly coincided with the doubts expressed by the count, that he refrained from saying another word.

The coast, without deviation, still tended towards the north. No alternative, therefore, remained than to take a westerly course and to attempt to reach the northern shores of the Mediterranean. On the 16th the Dobryna essayed to start upon her altered way, but it seemed as if the elements had conspired to obstruct her progress. A furious tempest arose; the wind beat dead in the direction of the coast, and the danger incurred by a vessel of a tonnage so light was necessarily very great.

Lieutenant Procope was extremely uneasy. He took in all sail, struck his topmasts, and resolved to rely entirely on his engine. But the peril seemed only to increase. Enormous waves caught the schooner and carried her up to their crests, whence again she was plunged deep into the abysses that they left. The screw failed to keep its hold upon the water, but continually revolved with useless speed in the vacant air; and thus, although the steam was forced on to the extremest limit consistent with safety, the vessel held her way with the utmost difficulty, and recoiled before the hurricane.

Still, not a single resort for refuge did the inaccessible shore present. Again and again the lieutenant asked himself what would become of him and his comrades, even if they should survive the peril of shipwreck, and gain a footing upon the cliff. What resources could they expect to find upon that scene of desolation? What hope could they entertain that any portion of the old continent still existed beyond that dreary barrier?

It was a trying time, but throughout it all the crew behaved with the greatest courage and composure; confident in the skill of their commander, and in the stability of their ship, they performed their duties with steadiness and unquestioning obedience.

But neither skill, nor courage, nor obedience could avail; all was in vain. Despite the strain put upon her engine, the schooner, bare of canvas (for not even the smallest stay-sail could have withstood the violence of the storm), was drifting with terrific speed towards the menacing precipices, which were only a. few short miles to leeward. Fully alive to the hopelessness of their situation, the crew were all on deck.

"All over with us, sir!" said Procope to the count. "I have done everything that man could do; but our case is desperate. Nothing short of a miracle can save us now. Within an hour we must go to pieces upon yonder rocks."

"Let us, then, commend ourselves to the providence of Him to Whom nothing is impossible," replied the count, in a calm, clear voice that could be distinctly heard by all; and as he spoke, he reverently uncovered, an example in which he was followed by all the rest.

The destruction of the vessel seeming thus inevitable, Lieutenant Procope took the best measures he could to insure a few days' supply of food for any who might escape ashore. He ordered several cases of provisions and kegs of water to be brought on deck, and saw that they were securely lashed to some empty barrels, to make them float after the ship had gone down.

Less and less grew the distance from the shore, but no creek, no inlet, could be discerned in the towering wall of cliff, which seemed about to topple over and involve them in annihilation. Except a change of wind or, as Procope observed, a supernatural rifting of the rock, nothing could bring deliverance now. But the wind did not veer, and in a few minutes more the schooner was hardly three cables' distance from the fatal land. All were aware that their last moment had arrived. Servadac and the count grasped each other's hands for a long farewell; and, tossed by the tremendous waves, the schooner was on the very point of being hurled upon the cliff, when a ringing shout was heard. "Quick, boys, quick! Hoist the jib, and right the tiller!"

Sudden and startling as the unexpected orders were, they were executed as if by magic.

The lieutenant, who had shouted from the bow, rushed astern and took the helm, and before anyone had time to speculate upon the object of his maneuvers, he shouted again, "Look out! sharp! watch the sheets!"

An involuntary cry broke forth from all on board. But it was no cry of terror. Right ahead was a narrow opening in the solid rock; it was hardly forty feet wide. Whether it was a passage or no, it mattered little; it was at least a refuge; and, driven by wind and wave, the

Dobryna, under the dexterous guidance of the lieutenant, dashed in between its perpendicular walls.

Had she not immured herself in a perpetual prison?

CHAPTER XIII. A ROYAL SALUTE

"Then I take your bishop, major," said Colonel Murphy, as he made a move that he had taken since the previous evening to consider.

"I was afraid you would," replied Major Oliphant, looking intently at the chess-board.

Such was the way in which a long silence was broken on the morning of the 17th of February by the old calendar.

Another day elapsed before another move was made. It was a protracted game; it had, in fact, already lasted some months--the players being so deliberate, and so fearful of taking a step without the most mature consideration, that even now they were only making the twentieth move.

Both of them, moreover, were rigid disciples of the renowned Philidor, who pronounces that to play the pawns well is "the soul of chess"; and, accordingly, not one pawn had been sacrificed without a most vigorous defense.

The men who were thus beguiling their leisure were two officers in the British army--Colonel Heneage Finch Murphy and Major Sir John Temple

Oliphant. Remarkably similar in personal appearance, they were hardly less so in personal character. Both of them were about forty years of age; both of them were tall and fair, with bushy whiskers and mustaches; both of them were phlegmatic in temperament, and both much addicted to the wearing of their uniforms. They were proud of their nationality, and exhibited a manifest dislike, verging upon contempt, of everything foreign. Probably they would have felt no surprise if they had been told that Anglo-Saxons were fashioned out of some specific clay, the properties of which surpassed the investigation of chemical analysis. Without any intentional disparagement they might, in a certain way, be compared to two scarecrows which, though perfectly harmless in themselves, inspire some measure of respect, and are excellently adapted to protect the territory intrusted to their guardianship.

English-like, the two officers had made themselves thoroughly at home in the station abroad in which it had been their lot to be quartered. The faculty of colonization seems to be indigenous to the native character; once let an Englishman plant his national standard on the surface of the moon, and it would not be long before a colony was established round it.

The officers had a servant, named Kirke, and a company of ten soldiers of the line. This party of thirteen men were apparently the sole survivors of an overwhelming catastrophe, which on the 1st of January had transformed an enormous rock, garrisoned with well-nigh two thousand

troops, into an insignificant island far out to sea. But although the transformation had been so marvelous, it cannot be said that either Colonel Murphy or Major Oliphant had made much demonstration of astonishment.

"This is all very peculiar, Sir John," observed the colonel.

"Yes, colonel; very peculiar," replied the major.

"England will be sure to send for us," said one officer.

"No doubt she will," answered the other.

Accordingly, they came to the mutual resolution that they would "stick to their post."

To say the truth, it would have been a difficult matter for the gallant officers to do otherwise; they had but one small boat; therefore, it was well that they made a virtue of necessity, and resigned themselves to patient expectation of the British ship which, in due time, would bring relief.

They had no fear of starvation. Their island was mined with subterranean stores, more than ample for thirteen men--nay, for thirteen

Englishmen--for the next five years at least. Preserved meat, ale, brandy--all were in abundance; consequently, as the men expressed it, they were in this respect "all right."

Of course, the physical changes that had taken place had attracted the notice both of officers and men. But the reversed position of east and west, the diminution of the force of gravity, the altered rotation of the earth, and her projection upon a new orbit, were all things that gave them little concern and no uneasiness; and when the colonel and the major had replaced the pieces on the board which had been disturbed by the convulsion, any surprise they might have felt at the chess-men losing some portion of their weight was quite forgotten in the satisfaction of seeing them retain their equilibrium.

One phenomenon, however, did not fail to make its due impression upon the men; this was the diminution in the length of day and night. Three days after the catastrophe, Corporal Pim, on behalf of himself and his comrades, solicited a formal interview with the officers. The request having been granted, Pim, with the nine soldiers, all punctiliously wearing the regimental tunic of scarlet and trousers of invisible green, presented themselves at the door of the colonel's room, where he and his brother-officer were continuing their game. Raising his hand respectfully to his cap, which he wore poised jauntily over his right ear, and scarcely held on by the strap below his under lip, the corporal

waited permission to speak.

After a lingering survey of the chess-board, the colonel slowly lifted his eyes, and said with official dignity, "Well, men, what is it?"

"First of all, sir," replied the corporal, "we want to speak to you about our pay, and then we wish to have a word with the major about our rations."

"Say on, then," said Colonel Murphy. "What is it about your pay?"

"Just this, sir; as the days are only half as long as they were, we should like to know whether our pay is to be diminished in proportion."

The colonel was taken somewhat aback, and did not reply immediately, though by some significant nods towards the major, he indicated that he thought the question very reasonable. After a few moments' reflection, he replied, "It must, I think, be allowed that your pay was calculated from sunrise to sunrise; there was no specification of what the interval should be. Your pay will continue as before. England can afford it."

A buzz of approval burst involuntarily from all the men, but military discipline and the respect due to their officers kept them in check from any boisterous demonstration of their satisfaction.

"And now, corporal, what is your business with me?" asked Major Oliphant.

"We want to know whether, as the days are only six hours long, we are to have but two meals instead of four?"

The officers looked at each other, and by their glances agreed that the corporal was a man of sound common sense.

"Eccentricities of nature," said the major, "cannot interfere with military regulations. It is true that there will be but an interval of an hour and a half between them, but the rule stands good--four meals a day. England is too rich to grudge her soldiers any of her soldiers' due. Yes; four meals a day."

"Hurrah!" shouted the soldiers, unable this time to keep their delight within the bounds of military decorum; and, turning to the right-about, they marched away, leaving the officers to renew the all-absorbing game.

However confident everyone upon the island might profess to be that succor would be sent them from their native land--for Britain never abandons any of her sons--it could not be disguised that that succor was somewhat tardy in making its appearance. Many and various were the

conjectures to account for the delay. Perhaps England was engrossed with domestic matters, or perhaps she was absorbed in diplomatic difficulties; or perchance, more likely than all, Northern Europe had received no tidings of the convulsion that had shattered the south. The whole party throve remarkably well upon the liberal provisions of the commissariat department, and if the officers failed to show the same tendency to embonpoint which was fast becoming characteristic of the men, it was only because they deemed it due to their rank to curtail any indulgences which might compromise the fit of their uniform.

On the whole, time passed indifferently well. An Englishman rarely suffers from ennui, and then only in his own country, when required to conform to what he calls "the humbug of society"; and the two officers, with their similar tastes, ideas, and dispositions, got on together admirably. It is not to be questioned that they were deeply affected by a sense of regret for their lost comrades, and astounded beyond measure at finding themselves the sole survivors of a garrison of 1,895 men, but with true British pluck and self-control, they had done nothing more than draw up a report that 1,882 names were missing from the muster-roll.

The island itself, the sole surviving fragment of an enormous pile of rock that had reared itself some 1,600 feet above the sea, was not, strictly speaking, the only land that was visible; for about twelve

miles to the south there was another island, apparently the very counterpart of what was now occupied by the Englishmen. It was only natural that this should awaken some interest even in the most imperturbable minds, and there was no doubt that the two officers, during one of the rare intervals when they were not absorbed in their game, had decided that it would be desirable at least to ascertain whether the island was deserted, or whether it might not be occupied by some others, like themselves, survivors from the general catastrophe. Certain it is that one morning, when the weather was bright and calm, they had embarked alone in the little boat, and been absent for seven or eight hours. Not even to Corporal Pim did they communicate the object of their excursion, nor say one syllable as to its result, and it could only be inferred from their manner that they were quite satisfied with what they had seen; and very shortly afterwards Major Oliphant was observed to draw up a lengthy document, which was no sooner finished than it was formally signed and sealed with the seal of the 33rd Regiment. It was directed:

To the First Lord of the Admiralty,
London,

and kept in readiness for transmission by the first ship that should hail in sight. But time elapsed, and here was the 18th of February without an opportunity having been afforded for any communication with

the British Government.

At breakfast that morning, the colonel observed to the major that he was under the most decided impression that the 18th of February was a royal anniversary; and he went on to say that, although he had received no definite instructions on the subject, he did not think that the peculiar circumstances under which they found themselves should prevent them from giving the day its due military honors.

The major quite concurred; and it was mutually agreed that the occasion must be honored by a bumper of port, and by a royal salute. Corporal Pim must be sent for. The corporal soon made his appearance, smacking his lips, having, by a ready intuition, found a pretext for a double morning ration of spirits.

"The 18th of February, you know, Pim," said the colonel; "we must have a salute of twenty-one guns."

"Very good," replied Pim, a man of few words.

"And take care that your fellows don't get their arms and legs blown off," added the officer.

"Very good, sir," said the corporal; and he made his salute and

withdrew.

Of all the bombs, howitzers, and various species of artillery with which the fortress had been crowded, one solitary piece remained. This was a cumbrous muzzle-loader of 9-inch caliber, and, in default of the smaller ordnance generally employed for the purpose, had to be brought into requisition for the royal salute.

A sufficient number of charges having been provided, the corporal brought his men to the reduct, whence the gun's mouth projected over a sloping embrasure. The two officers, in cocked hats and full staff uniform, attended to take charge of the proceedings. The gun was maneuvered in strict accordance with the rules of "The Artilleryman's Manual," and the firing commenced.

Not unmindful of the warning he had received, the corporal was most careful between each discharge to see that every vestige of fire was extinguished, so as to prevent an untimely explosion while the men were reloading; and accidents, such as so frequently mar public rejoicings, were all happily avoided.

Much to the chagrin of both Colonel Murphy and Major Oliphant, the effect of the salute fell altogether short of their anticipations. The weight of the atmosphere was so reduced that there was comparatively

little resistance to the explosive force of the gases, liberated at the cannon's mouth, and there was consequently none of the reverberation, like rolling thunder, that ordinarily follows the discharge of heavy artillery.

Twenty times had the gun been fired, and it was on the point of being loaded for the last time, when the colonel laid his hand upon the arm of the man who had the ramrod. "Stop!" he said; "we will have a ball this time. Let us put the range of the piece to the test."

"A good idea!" replied the major. "Corporal, you hear the orders."

In quick time an artillery-wagon was on the spot, and the men lifted out a full-sized shot, weighing 200 lbs., which, under ordinary circumstances, the cannon would carry about four miles. It was proposed, by means of telescopes, to note the place where the ball first touched the water, and thus to obtain an approximation sufficiently accurate as to the true range.

Having been duly charged with powder and ball, the gun was raised to an angle of something under 45 degrees, so as to allow proper development to the curve that the projectile would make, and, at a signal from the major, the light was applied to the priming.

"Heavens!" "By all that's good!" exclaimed both officers in one breath, as, standing open-mouthed, they hardly knew whether they were to believe the evidence of their own senses. "Is it possible?"

The diminution of the force of attraction at the earth's surface was so considerable that the ball had sped beyond the horizon.

"Incredible!" ejaculated the colonel.

"Incredible!" echoed the major.

"Six miles at least!" observed the one.

"Ay, more than that!" replied the other.

Awhile, they gazed at the sea and at each other in mute amazement. But in the midst of their perplexity, what sound was that which startled them? Was it mere fancy? Was it the reverberation of the cannon still booming in their ears? Or was it not truly the report of another and a distant gun in answer to their own? Attentively and eagerly they listened. Twice, thrice did the sound repeat itself. It was quite distinct. There could be no mistake.

"I told you so," cried the colonel, triumphantly. "I knew our country

would not forsake us; it is an English ship, no doubt."

In half an hour two masts were visible above the horizon. "See! Was I not right? Our country was sure to send to our relief. Here is the ship."

"Yes," replied the major; "she responded to our gun."

"It is to be hoped," muttered the corporal, "that our ball has done her no damage."

Before long the hull was full in sight. A long trail of smoke betokened her to be a steamer; and very soon, by the aid of the glass, it could be ascertained that she was a schooner-yacht, and making straight for the island. A flag at her mast-head fluttered in the breeze, and towards this the two officers, with the keenest attention, respectively adjusted their focus.

Simultaneously the two telescopes were lowered. The colonel and the major stared at each other in blank astonishment. "Russian!" they gasped.

And true it was that the flag that floated at the head of yonder mast was the blue cross of Russia.

CHAPTER XIV. SENSITIVE NATIONALITY

When the schooner had approached the island, the Englishmen were able to make out the name "Dobryna" painted on the aft-board. A sinuous irregularity of the coast had formed a kind of cove, which, though hardly spacious enough for a few fishing-smacks, would afford the yacht a temporary anchorage, so long as the wind did not blow violently from either west or south. Into this cove the Dobryna was duly signaled, and as soon as she was safely moored, she lowered her four-oar, and Count Timascheff and Captain Servadac made their way at once to land.

Colonel Heneage Finch Murphy and Major Sir John Temple Oliphant stood, grave and prim, formally awaiting the arrival of their visitors. Captain Servadac, with the uncontrolled vivacity natural to a Frenchman, was the first to speak.

"A joyful sight, gentlemen!" he exclaimed. "It will give us unbounded pleasure to shake hands again with some of our fellow-creatures. You, no doubt, have escaped the same disaster as ourselves."

But the English officers, neither by word nor gesture, made the slightest acknowledgment of this familiar greeting.

"What news can you give us of France, England, or Russia?" continued Servadac, perfectly unconscious of the stolid rigidity with which his advances were received. "We are anxious to hear anything you can tell us. Have you had communications with Europe? Have you--"

"To whom have we the honor of speaking?" at last interposed Colonel Murphy, in the coldest and most measured tone, and drawing himself up to his full height.

"Ah! how stupid! I forgot," said Servadac, with the slightest possible shrug of the shoulders; "we have not been introduced."

Then, with a wave of his hand towards his companion, who meanwhile had exhibited a reserve hardly less than that of the British officers, he said:

"Allow me to introduce you to Count Wassili Timascheff."

"Major Sir John Temple Oliphant," replied the colonel.

The Russian and the Englishman mutually exchanged the stiffest of bows.

"I have the pleasure of introducing Captain Servadac," said the count in

his turn.

"And this is Colonel Heneage Finch Murphy," was the major's grave rejoinder.

More bows were interchanged and the ceremony brought to its due conclusion. It need hardly be said that the conversation had been carried on in French, a language which is generally known both by Russians and Englishmen--a circumstance that is probably in some measure to be accounted for by the refusal of Frenchmen to learn either Russian or English.

The formal preliminaries of etiquette being thus complete, there was no longer any obstacle to a freer intercourse. The colonel, signing to his guests to follow, led the way to the apartment occupied jointly by himself and the major, which, although only a kind of casemate hollowed in the rock, nevertheless wore a general air of comfort. Major Oliphant accompanied them, and all four having taken their seats, the conversation was commenced.

Irritated and disgusted at all the cold formalities, Hector Servadac resolved to leave all the talking to the count; and he, quite aware that the Englishmen would adhere to the fiction that they could be supposed to know nothing that had transpired previous to the introduction felt

himself obliged to recapitulate matters from the very beginning.

"You must be aware, gentlemen," began the count, "that a most singular catastrophe occurred on the 1st of January last. Its cause, its limits we have utterly failed to discover, but from the appearance of the island on which we find you here, you have evidently experienced its devastating consequences."

The Englishmen, in silence, bowed assent.

"Captain Servadac, who accompanies me," continued the count, "has been most severely tried by the disaster. Engaged as he was in an important mission as a staff-officer in Algeria--"

"A French colony, I believe," interposed Major Oliphant, half shutting his eyes with an expression of supreme indifference.

Servadac was on the point of making some cutting retort, but Count Timascheff, without allowing the interruption to be noticed, calmly continued his narrative:

"It was near the mouth of the Shelif that a portion of Africa, on that eventful night, was transformed into an island which alone survived; the rest of the vast continent disappeared as completely as if it had never

been."

The announcement seemed by no means startling to the phlegmatic colonel.

"Indeed!" was all he said.

"And where were you?" asked Major Oliphant.

"I was out at sea, cruising in my yacht; hard by; and I look upon it as a miracle, and nothing less, that I and my crew escaped with our lives."

"I congratulate you on your luck," replied the major.

The count resumed: "It was about a month after the great disruption that I was sailing--my engine having sustained some damage in the shock--along the Algerian coast, and had the pleasure of meeting with my previous acquaintance, Captain Servadac, who was resident upon the island with his orderly, Ben Zoof."

"Ben who?" inquired the major.

"Zoof! Ben Zoof!" ejaculated Servadac, who could scarcely shout loud enough to relieve his pent-up feelings.

Ignoring this ebullition of the captain's spleen, the count went on to say: "Captain Servadac was naturally most anxious to get what news he could. Accordingly, he left his servant on the island in charge of his horses, and came on board the Dobryna with me. We were quite at a loss to know where we should steer, but decided to direct our course to what previously had been the east, in order that we might, if possible, discover the colony of Algeria; but of Algeria not a trace remained."

The colonel curled his lip, insinuating only too plainly that to him it was by no means surprising that a French colony should be wanting in the element of stability. Servadac observed the supercilious look, and half rose to his feet, but, smothering his resentment, took his seat again without speaking.

"The devastation, gentlemen," said the count, who persistently refused to recognize the Frenchman's irritation, "everywhere was terrible and complete. Not only was Algeria lost, but there was no trace of Tunis, except one solitary rock, which was crowned by an ancient tomb of one of the kings of France--"

"Louis the Ninth, I presume," observed the colonel.

"Saint Louis," blurted out Servadac, savagely.

Colonel Murphy slightly smiled.

Proof against all interruption, Count Timascheff, as if he had not heard it, went on without pausing. He related how the schooner had pushed her way onwards to the south, and had reached the Gulf of Cabes; and how she had ascertained for certain that the Sahara Sea had no longer an existence.

The smile of disdain again crossed the colonel's face; he could not conceal his opinion that such a destiny for the work of a Frenchman could be no matter of surprise.

"Our next discovery," continued the count, "was that a new coast had been upheaved right along in front of the coast of Tripoli, the geological formation of which was altogether strange, and which extended to the north as far as the proper place of Malta."

"And Malta," cried Servadac, unable to control himself any longer; "Malta--town, forts, soldiers, governor, and all--has vanished just like Algeria."

For a moment a cloud rested upon the colonel's brow, only to give place to an expression of decided incredulity.

"The statement seems highly incredible," he said.

"Incredible?" repeated Servadac. "Why is it that you doubt my word?"

The captain's rising wrath did not prevent the colonel from replying coolly, "Because Malta belongs to England."

"I can't help that," answered Servadac, sharply; "it has gone just as utterly as if it had belonged to China."

Colonel Murphy turned deliberately away from Servadac, and appealed to the count: "Do you not think you may have made some error, count, in reckoning the bearings of your yacht?"

"No, colonel, I am quite certain of my reckonings; and not only can I testify that Malta has disappeared, but I can affirm that a large section of the Mediterranean has been closed in by a new continent. After the most anxious investigation, we could discover only one narrow opening in all the coast, and it is by following that little channel that we have made our way hither. England, I fear, has suffered grievously by the late catastrophe. Not only has Malta been entirely lost, but of the Ionian Islands that were under England's protection, there seems to be but little left."

"Ay, you may depend upon it," said Servadac, breaking in upon the conversation petulantly, "your grand resident lord high commissioner has not much to congratulate himself about in the condition of Corfu."

The Englishmen were mystified.

"Corfu, did you say?" asked Major Oliphant.

"Yes, Corfu; I said Corfu," replied Servadac, with a sort of malicious triumph.

The officers were speechless with astonishment.

The silence of bewilderment was broken at length by Count Timascheff making inquiry whether nothing had been heard from England, either by telegraph or by any passing ship.

"No," said the colonel; "not a ship has passed; and the cable is broken."

"But do not the Italian telegraphs assist you?" continued the count.

"Italian! I do not comprehend you. You must mean the Spanish, surely."

"How?" demanded Timascheff.

"Confound it!" cried the impatient Servadac. "What matters whether it be Spanish or Italian? Tell us, have you had no communication at all from Europe?--no news of any sort from London?"

"Hitherto, none whatever," replied the colonel; adding with a stately emphasis, "but we shall be sure to have tidings from England before long."

"Whether England is still in existence or not, I suppose," said Servadac, in a tone of irony.

The Englishmen started simultaneously to their feet.

"England in existence?" the colonel cried. "England! Ten times more probable that France--"

"France!" shouted Servadac in a passion. "France is not an island that can be submerged; France is an integral portion of a solid continent. France, at least, is safe."

A scene appeared inevitable, and Count Timascheff's efforts to conciliate the excited parties were of small avail.

"You are at home here," said Servadac, with as much calmness as he could command; "it will be advisable, I think, for this discussion to be carried on in the open air." And hurriedly he left the room. Followed immediately by the others, he led the way to a level piece of ground, which he considered he might fairly claim as neutral territory.

"Now, gentlemen," he began haughtily, "permit me to represent that, in spite of any loss France may have sustained in the fate of Algeria, France is ready to answer any provocation that affects her honor. Here I am the representative of my country, and here, on neutral ground--"

"Neutral ground?" objected Colonel Murphy; "I beg your pardon. This, Captain Servadac, is English territory. Do you not see the English flag?" and, as he spoke, he pointed with national pride to the British standard floating over the top of the island.

"Pshaw!" cried Servadac, with a contemptuous sneer; "that flag, you know, has been hoisted but a few short weeks."

"That flag has floated where it is for ages," asserted the colonel.

"An imposture!" shouted Servadac, as he stamped with rage.

Recovering his composure in a degree, he continued: "Can you suppose that I am not aware that this island on which we find you is what remains of the Ionian representative republic, over which you English exercise the right of protection, but have no claim of government?"

The colonel and the major looked at each other in amazement.

Although Count Timascheff secretly sympathized with Servadac, he had carefully refrained from taking part in the dispute; but he was on the point of interfering, when the colonel, in a greatly subdued tone, begged to be allowed to speak.

"I begin to apprehend," he said, "that you must be la-boring under some strange mistake. There is no room for questioning that the territory here is England's--England's by right of conquest; ceded to England by the Treaty of Utrecht. Three times, indeed--in 1727, 1779, and 1792--France and Spain have disputed our title, but always to no purpose. You are, I assure you, at the present moment, as much on English soil as if you were in London, in the middle of Trafalgar Square."

It was now the turn of the captain and the count to look surprised. "Are we not, then, in Corfu?" they asked.

"You are at Gibraltar," replied the colonel.

Gibraltar! The word fell like a thunderclap upon their ears. Gibraltar! the western extremity of the Mediterranean! Why, had they not been sailing persistently to the east? Could they be wrong in imagining that they had reached the Ionian Islands? What new mystery was this?

Count Timascheff was about to proceed with a more rigorous investigation, when the attention of all was arrested by a loud outcry. Turning round, they saw that the crew of the Dobryna was in hot dispute with the English soldiers. A general altercation had arisen from a disagreement between the sailor Panofka and Corporal Pim. It had transpired that the cannon-ball fired in experiment from the island had not only damaged one of the spars of the schooner, but had broken Panofka's pipe, and, moreover, had just grazed his nose, which, for a Russian's, was unusually long. The discussion over this mishap led to mutual recriminations, till the sailors had almost come to blows with the garrison.

Servadac was just in the mood to take Panofka's part, which drew from Major Oliphant the remark that England could not be held responsible for any accidental injury done by her cannon, and if the Russian's long nose came in the way of the ball, the Russian must submit to the mischance.

This was too much for Count Timascheff, and having poured out a torrent of angry invective against the English officers, he ordered his crew to embark immediately.

"We shall meet again," said Servadac, as they pushed off from shore.

"Whenever you please," was the cool reply.

The geographical mystery haunted the minds of both the count and the captain, and they felt they could never rest till they had ascertained what had become of their respective countries. They were glad to be on board again, that they might résumé their voyage of investigation, and in two hours were out of sight of the sole remaining fragment of Gibraltar.

CHAPTER XV. AN ENIGMA FROM THE SEA

Lieutenant Procope had been left on board in charge of the Dobryna, and on resuming the voyage it was a task of some difficulty to make him understand the fact that had just come to light. Some hours were spent in discussion and in attempting to penetrate the mysteries of the situation.

There were certain things of which they were perfectly certain. They could be under no misapprehension as to the distance they had positively sailed from Gourbi Island towards the east before their further progress was arrested by the unknown shore; as nearly as possible that was fifteen degrees; the length of the narrow strait by which they had made their way across that land to regain the open sea was about three miles and a half; thence onward to the island, which they had been assured, on evidence that they could not disbelieve, to be upon the site of Gibraltar, was four degrees; while from Gibraltar to Gourbi Island was seven degrees or but little more. What was it altogether? Was it not less than thirty degrees? In that latitude, the degree of longitude represents eight and forty miles. What, then, did it all amount to? Indubitably, to less than 1,400 miles. So brief a voyage would bring the Dobryna once again to her starting-point, or, in other words, would enable her to complete the circumnavigation of the globe. How changed

the condition of things! Previously, to sail from Malta to Gibraltar by an eastward course would have involved the passage of the Suez Canal, the Red Sea, the Indian Ocean, the Pacific, the Atlantic; but what had happened now? Why, Gibraltar had been reached as if it had been just at Corfu, and some three hundred and thirty degrees of the earth's circuit had vanished utterly.

After allowing for a certain margin of miscalculation, the main fact remained undeniable; and the necessary inference that Lieutenant Procope drew from the round of the earth being completed in 1,400 miles, was that the earth's diameter had been reduced by about fifteen sixteenths of its length.

"If that be so," observed the count, "it accounts for some of the strange phenomena we witness. If our world has become so insignificant a spheroid, not only has its gravity diminished, but its rotary speed has been accelerated; and this affords an adequate explanation of our days and nights being thus curtailed. But how about the new orbit in which we are moving?"

He paused and pondered, and then looked at Procope as though awaiting from him some further elucidation of the difficulty. The lieutenant hesitated. When, in a few moments, he began to speak, Servadac smiled intelligently, anticipating the answer he was about to hear.

"My conjecture is," said Procope, "that a fragment of considerable magnitude has been detached from the earth; that it has carried with it an envelope of the earth's atmosphere, and that it is now traveling through the solar system in an orbit that does not correspond at all with the proper orbit of the earth."

The hypothesis was plausible; but what a multitude of bewildering speculations it entailed! If, in truth, a certain mass had been broken off from the terrestrial sphere, whither would it wend its way? What would be the measure of the eccentricity of its path? What would be its period round the sun? Might it not, like a comet, be carried away into the vast infinity of space? or, on the other hand, might it not be attracted to the great central source of light and heat, and be absorbed in it? Did its orbit correspond with the orbit of the ecliptic? and was there no chance of its ever uniting again with the globe, from which it had been torn off by so sudden and violent a disruption?

A thoughtful silence fell upon them all, which Servadac was the first to break. "Lieutenant," he said, "your explanation is ingenious, and accounts for many appearances; but it seems to me that in one point it fails."

"How so?" replied Procope. "To my mind the theory meets all objections."

"I think not," Servadac answered. "In one point, at least, it appears to me to break down completely."

"What is that?" asked the lieutenant.

"Stop a moment," said the captain. "Let us see that we understand each other right. Unless I mistake you, your hypothesis is that a fragment of the earth, comprising the Mediterranean and its shores from Gibraltar to Malta, has been developed into a new asteroid, which is started on an independent orbit in the solar regions. Is not that your meaning?"

"Precisely so," the lieutenant acquiesced.

"Well, then," continued Servadac, "it seems to me to be at fault in this respect: it fails, and fails completely, to account for the geological character of the land that we have found now encompassing this sea. Why, if the new land is a fragment of the old--why does it not retain its old formation? What has become of the granite and the calcareous deposits? How is it that these should all be changed into a mineral concrete with which we have no acquaintance?"

No doubt, it was a serious objection; for, however likely it might be that a mass of the earth on being detached would be eccentric in its

movements, there was no probable reason to be alleged why the material of its substance should undergo so complete a change. There was nothing to account for the fertile shores, rich in vegetation, being transformed into rocks arid and barren beyond precedent.

The lieutenant felt the difficulty, and owned himself unprepared to give at once an adequate solution; nevertheless, he declined to renounce his theory. He asserted that the arguments in favor of it carried conviction to his mind, and that he entertained no doubt but that, in the course of time, all apparently antagonistic circumstances would be explained so as to become consistent with the view he took. He was careful, however, to make it understood that with respect to the original cause of the disruption he had no theory to offer; and although he knew what expansion might be the result of subterranean forces, he did not venture to say that he considered it sufficient to produce so tremendous an effect. The origin of the catastrophe was a problem still to be solved.

"Ah! well," said Servadac, "I don't know that it matters much where our new little planet comes from, or what it is made of, if only it carries France along with it."

"And Russia," added the count.

"And Russia, of course," said Servadac, with a polite bow.

There was, however, not much room for this sanguine expectation, for if a new asteroid had thus been brought into existence, it must be a sphere of extremely limited dimensions, and there could be little chance that it embraced more than the merest fraction of either France or Russia. As to England, the total cessation of all telegraphic communication between her shores and Gibraltar was a virtual proof that England was beyond its compass.

And what was the true measurement of the new little world? At Gourbi Island the days and nights were of equal length, and this seemed to indicate that it was situated on the equator; hence the distance by which the two poles stood apart would be half what had been reckoned would be the distance completed by the Dobryna in her circuit. That distance had been already estimated to be something under 1,400 miles, so that the Arctic Pole of their recently fashioned world must be about 350 miles to the north, and the Antarctic about 350 miles to the south of the island. Compare these calculations with the map, and it is at once apparent that the northernmost limit barely touched the coast of Provence, while the southernmost reached to about lat. 20 degrees N., and fell in the heart of the desert. The practical test of these conclusions would be made by future investigation, but meanwhile the fact appeared very much to strengthen the presumption that, if Lieutenant Procope had not arrived at the whole truth, he had made a

considerable advance towards it.

The weather, ever since the storm that had driven the Dobryna into the creek, had been magnificent. The wind continued favorable, and now under both steam and canvas, she made a rapid progress towards the north, a direction in which she was free to go in consequence of the total disappearance of the Spanish coast, from Gibraltar right away to Alicante. Malaga, Almeria, Cape Gata, Carthagena. Cape Palos--all were gone. The sea was rolling over the southern extent of the peninsula, so that the yacht advanced to the latitude of Seville before it sighted any land at all, and then, not shores such as the shores of Andalusia, but a bluff and precipitous cliff, in its geological features resembling exactly the stern and barren rock that she had coasted beyond the site of Malta. Here the sea made a decided indentation on the coast; it ran up in an acute-angled triangle till its apex coincided with the very spot upon which Madrid had stood. But as hitherto the sea had encroached upon the land, the land in its turn now encroached upon the sea; for a frowning headland stood out far into the basin of the Mediterranean, and formed a promontory stretching out beyond the proper places of the Balearic Isles. Curiosity was all alive. There was the intensest interest awakened to determine whether no vestige could be traced of Majorca, Minorca, or any of the group, and it was during a deviation from the direct course for the purpose of a more thorough scrutiny, that one of the sailors raised a thrill of general excitement by shouting, "A

bottle in the sea!"

Here, then, at length was a communication from the outer world. Surely now they would find a document which would throw some light upon all the mysteries that had happened? Had not the day now dawned that should set their speculations all at rest?

It was the morning of the 21st of February. The count, the captain, the lieutenant, everybody hurried to the forecastle; the schooner was dexterously put about, and all was eager impatience until the supposed bottle was hauled on deck.

It was not, however, a bottle; it proved to be a round leather telescope-case, about a foot long, and the first thing to do before investigating its contents was to make a careful examination of its exterior. The lid was fastened on by wax, and so securely that it would take a long immersion before any water could penetrate; there was no maker's name to be deciphered; but impressed very plainly with a seal on the wax were the two initials "P. R."

When the scrutiny of the outside was finished, the wax was removed and the cover opened, and the lieutenant drew out a slip of ruled paper, evidently torn from a common note-book. The paper had an inscription written in four lines, which were remarkable for the profusion of notes

of admiration and interrogation with which they were interspersed:

"Gallia???

Ab sole, au 15 fev. 59,000,000 l.!

Chemin parcouru de janv. a fev. 82,000,000 l.!!

Va bene! All right!! Parfait!!!"

There was a general sigh of disappointment. They turned the paper over and over, and handed it from one to another. "What does it all mean?" exclaimed the count.

"Something mysterious here!" said Servadac. "But yet," he continued, after a pause, "one thing is tolerably certain: on the 15th, six days ago, someone was alive to write it."

"Yes; I presume there is no reason to doubt the accuracy of the date," assented the count.

To this strange conglomeration of French, English, Italian, and Latin, there was no signature attached; nor was there anything to give a clue as to the locality in which it had been committed to the waves. A telescope-case would probably be the property of some one on board a ship; and the figures obviously referred to the astronomical wonders that had been experienced.

To these general observations Captain Servadac objected that he thought it unlikely that any one on board a ship would use a telescope-case for this purpose, but would be sure to use a bottle as being more secure; and, accordingly, he should rather be inclined to believe that the message had been set afloat by some savant left alone, perchance, upon some isolated coast.

"But, however interesting it might be," observed the count, "to know the author of the lines, to us it is of far greater moment to ascertain their meaning."

And taking up the paper again, he said, "Perhaps we might analyze it word by word, and from its detached parts gather some clue to its sense as a whole."

"What can be the meaning of all that cluster of interrogations after Gallia?" asked Servadac.

Lieutenant Procope, who had hitherto not spoken, now broke his silence by saying, "I beg, gentlemen, to submit my opinion that this document goes very far to confirm my hypothesis that a fragment of the earth has been precipitated into space."

Captain Servadac hesitated, and then replied, "Even if it does, I do not see how it accounts in the least for the geological character of the new asteroid."

"But will you allow me for one minute to take my supposition for granted?" said Procope. "If a new little planet has been formed, as I imagine, by disintegration from the old, I should conjecture that Gallia is the name assigned to it by the writer of this paper. The very notes of interrogation are significant that he was in doubt what he should write."

"You would presume that he was a Frenchman?" asked the count.

"I should think so," replied the lieutenant.

"Not much doubt about that," said Servadac; "it is all in French, except a few scattered words of English, Latin, and Italian, inserted to attract attention. He could not tell into whose hands the message would fall first."

"Well, then," said Count Timascheff, "we seem to have found a name for the new world we occupy."

"But what I was going especially to observe," continued the lieutenant,

"is that the distance, 59,000,000 leagues, represents precisely the distance we ourselves were from the sun on the 15th. It was on that day we crossed the orbit of Mars."

"Yes, true," assented the others.

"And the next line," said the lieutenant, after reading it aloud, "apparently registers the distance traversed by Gallia, the new little planet, in her own orbit. Her speed, of course, we know by Kepler's laws, would vary according to her distance from the sun, and if she were--as I conjecture from the temperature at that date--on the 15th of January at her perihelion, she would be traveling twice as fast as the earth, which moves at the rate of between 50,000 and 60,000 miles an hour."

"You think, then," said Servadac, with a smile, "you have determined the perihelion of our orbit; but how about the aphelion? Can you form a judgment as to what distance we are likely to be carried?"

"You are asking too much," remonstrated the count.

"I confess," said the lieutenant, "that just at present I am not able to clear away the uncertainty of the future; but I feel confident that by careful observation at various points we shall arrive at conclusions

which not only will determine our path, but perhaps may clear up the mystery about our geological structure."

"Allow me to ask," said Count Timascheff, "whether such a new asteroid would not be subject to ordinary mechanical laws, and whether, once started, it would not have an orbit that must be immutable?"

"Decidedly it would, so long as it was undisturbed by the attraction of some considerable body; but we must recollect that, compared to the great planets, Gallia must be almost infinitesimally small, and so might be attracted by a force that is irresistible."

"Altogether, then," said Servadac, "we seem to have settled it to our entire satisfaction that we must be the population of a young little world called Gallia. Perhaps some day we may have the honor of being registered among the minor planets."

"No chance of that," quickly rejoined Lieutenant Procope. "Those minor planets all are known to rotate in a narrow zone between the orbits of Mars and Jupiter; in their perihelia they cannot approximate the sun as we have done; we shall not be classed with them."

"Our lack of instruments," said the count, "is much to be deplored; it baffles our investigations in every way."

"Ah, never mind! Keep up your courage, count!" said Servadac, cheerily.

And Lieutenant Procope renewed his assurances that he entertained good hopes that every perplexity would soon be solved.

"I suppose," remarked the count, "that we cannot attribute much importance to the last line: 'Va bene! All right!! Parfait!!!'"

The captain answered, "At least, it shows that whoever wrote it had no murmuring or complaint to make, but was quite content with the new order of things."

CHAPTER XVI. THE RESIDUUM OF A CONTINENT

Almost unconsciously, the voyagers in the Dobryna fell into the habit of using Gallia as the name of the new world in which they became aware they must be making an extraordinary excursion through the realms of space. Nothing, however, was allowed to divert them from their ostensible object of making a survey of the coast of the Mediterranean, and accordingly they persevered in following that singular boundary which had revealed itself to their extreme astonishment.

Having rounded the great promontory that had barred her farther progress to the north, the schooner skirted its upper edge. A few more leagues and they ought to be abreast of the shores of France. Yes, of France.

But who shall describe the feelings of Hector Servadac when, instead of the charming outline of his native land, he beheld nothing but a solid boundary of savage rock? Who shall paint the look of consternation with which he gazed upon the stony rampart--rising perpendicularly for a thousand feet--that had replaced the shores of the smiling south? Who shall reveal the burning anxiety with which he throbbed to see beyond that cruel wall?

But there seemed no hope. Onwards and onwards the yacht made her way,

and still no sign of France. It might have been supposed that Servadac's previous experiences would have prepared him for the discovery that the catastrophe which had overwhelmed other sites had brought destruction to his own country as well. But he had failed to realize how it might extend to France; and when now he was obliged with his own eyes to witness the waves of ocean rolling over what once had been the lovely shores of Provence, he was well-nigh frantic with desperation.

"Am I to believe that Gourbi Island, that little shred of Algeria, constitutes all that is left of our glorious France? No, no; it cannot be. Not yet have we reached the pole of our new world. There is--there must be--something more behind that frowning rock. Oh, that for a moment we could scale its towering height and look beyond! By Heaven, I adjure you, let us disembark, and mount the summit and explore! France lies beyond."

Disembarkation, however, was an utter impossibility. There was no semblance of a creek in which the Dobryna could find an anchorage. There was no outlying ridge on which a footing could be gained. The precipice was perpendicular as a wall, its topmost height crowned with the same conglomerate of crystallized lamellae that had all along been so pronounced a feature.

With her steam at high pressure, the yacht made rapid progress towards

the east. The weather remained perfectly fine, the temperature became gradually cooler, so that there was little prospect of vapors accumulating in the atmosphere; and nothing more than a few cirri, almost transparent, veiled here and there the clear azure of the sky. Throughout the day the pale rays of the sun, apparently lessened in its magnitude, cast only faint and somewhat uncertain shadows; but at night the stars shone with surpassing brilliancy. Of the planets, some, it was observed, seemed to be fading away in remote distance. This was the case with Mars, Venus, and that unknown orb which was moving in the orbit of the minor planets; but Jupiter, on the other hand, had assumed splendid proportions; Saturn was superb in its luster, and Uranus, which hitherto had been imperceptible without a telescope was pointed out by Lieutenant Procope, plainly visible to the naked eye. The inference was irresistible that Gallia was receding from the sun, and traveling far away across the planetary regions.

On the 24th of February, after following the sinuous course of what before the date of the convulsion had been the coast line of the department of Var, and after a fruitless search for Hyeres, the peninsula of St. Tropez, the Lerius Islands, and the gulfs of Cannes and Jouar, the Dobryna arrived upon the site of the Cape of Antibes.

Here, quite unexpectedly, the explorers made the discovery that the massive wall of cliff had been rent from the top to the bottom by a

narrow rift, like the dry bed of a mountain torrent, and at the base of the opening, level with the sea, was a little strand upon which there was just space enough for their boat to be hauled up.

"Joy! joy!" shouted Servadac, half beside himself with ecstasy; "we can land at last!"

Count Timascheff and the lieutenant were scarcely less impatient than the captain, and little needed his urgent and repeated solicitations: "Come on! Quick! Come on! no time to lose!"

It was half-past seven in the morning, when they set their foot upon this untried land. The bit of strand was only a few square yards in area, quite a narrow strip. Upon it might have been recognized some fragments of that agglutination of yellow limestone which is characteristic of the coast of Provence. But the whole party was far too eager to wait and examine these remnants of the ancient shore; they hurried on to scale the heights.

The narrow ravine was not only perfectly dry, but manifestly had never been the bed of any mountain torrent. The rocks that rested at the bottom--just as those which formed its sides--were of the same lamellous formation as the entire coast, and had not hitherto been subject to the disaggregation which the lapse of time never fails to work. A skilled

geologist would probably have been able to assign them their proper scientific classification, but neither Servadac, Timascheff, nor the lieutenant could pretend to any acquaintance with their specific character.

Although, however, the bottom of the chasm had never as yet been the channel of a stream, indications were not wanting that at some future time it would be the natural outlet of accumulated waters; for already, in many places, thin layers of snow were glittering upon the surface of the fractured rocks, and the higher the elevation that was gained, the more these layers were found to increase in area and in depth.

"Here is a trace of fresh water, the first that Gallia has exhibited," said the count to his companions, as they toiled up the precipitous path.

"And probably," replied the lieutenant, "as we ascend we shall find not only snow but ice. We must suppose this Gallia of ours to be a sphere, and if it is so, we must now be very close to her Arctic regions; it is true that her axis is not so much inclined as to prolong day and night as at the poles of the earth, but the rays of the sun must reach us here only very obliquely, and the cold, in all likelihood, will be intense."

"So cold, do you think," asked Servadac, "that animal life must be

extinct?"

"I do not say that, captain," answered the lieutenant; "for, however far our little world may be removed from the sun, I do not see why its temperature should fall below what prevails in those outlying regions beyond our system where sky and air are not." "And what temperature may that be?" inquired the captain with a shudder.

"Fourier estimates that even in those vast unfathomable tracts, the temperature never descends lower than 60 degrees," said Procope.

"Sixty! Sixty degrees below zero!" cried the count. "Why, there's not a Russian could endure it!"

"I beg your pardon, count. It is placed on record that the English have survived it, or something quite approximate, upon their Arctic expeditions. When Captain Parry was on Melville Island, he knew the thermometer to fall to 56 degrees," said Procope.

As the explorers advanced, they seemed glad to pause from time to time, that they might recover their breath; for the air, becoming more and more rarefied, made respiration somewhat difficult and the ascent fatiguing. Before they had reached an altitude of 600 feet they noticed a sensible diminution of the temperature; but neither cold nor fatigue

deterred them, and they were resolved to persevere. Fortunately, the deep striae or furrows in the surface of the rocks that made the bottom of the ravine in some degree facilitated their progress, but it was not until they had been toiling up for two hours more that they succeeded in reaching the summit of the cliff.

Eagerly and anxiously did they look around. To the south there was nothing but the sea they had traversed; to the north, nothing but one drear, inhospitable stretch.

Servadac could not suppress a cry of dismay. Where was his beloved France? Had he gained this arduous height only to behold the rocks carpeted with ice and snow, and reaching interminably to the far-off horizon? His heart sank within him.

The whole region appeared to consist of nothing but the same strange, uniform mineral conglomerate, crystallized into regular hexagonal prisms. But whatever was its geological character, it was only too evident that it had entirely replaced the former soil, so that not a vestige of the old continent of Europe could be discerned. The lovely scenery of Provence, with the grace of its rich and undulating landscape; its gardens of citrons and oranges rising tier upon tier from the deep red soil--all, all had vanished. Of the vegetable kingdom, there was not a single representative; the most meager of Arctic plants,

the most insignificant of lichens, could obtain no hold upon that stony waste. Nor did the animal world assert the feeblest sway. The mineral kingdom reigned supreme.

Captain Servadac's deep dejection was in strange contrast to his general hilarity. Silent and tearful, he stood upon an ice-bound rock, straining his eyes across the boundless vista of the mysterious territory. "It cannot be!" he exclaimed. "We must somehow have mistaken our bearings. True, we have encountered this barrier; but France is there beyond! Yes, France is there! Come, count, come! By all that's pitiful, I entreat you, come and explore the farthest verge of the ice-bound track!"

He pushed onwards along the rugged surface of the rock, but had not proceeded far before he came to a sudden pause. His foot had come in contact with something hard beneath the snow, and, stooping down, he picked up a little block of stony substance, which the first glance revealed to be of a geological character altogether alien to the universal rocks around. It proved to be a fragment of dis-colored marble, on which several letters were inscribed, of which the only part at all decipherable was the syllable "Vil."

"Vil--Villa!" he cried out, in his excitement dropping the marble, which was broken into atoms by the fall.

What else could this fragment be but the sole surviving remnant of some sumptuous mansion that once had stood on this unrivaled site? Was it not the residue of some edifice that had crowned the luxuriant headland of Antibes, overlooking Nice, and commanding the gorgeous panorama that embraced the Maritime Alps and reached beyond Monaco and Mentone to the Italian height of Bordighera? And did it not give in its sad and too convincing testimony that Antibes itself had been involved in the great destruction? Servadac gazed upon the shattered marble, pensive and disheartened.

Count Timascheff laid his hand kindly on the captain's shoulder, and said, "My friend, do you not remember the motto of the old Hope family?"

He shook his head mournfully.

"Orbe fracto, spes illoesa," continued the count--"Though the world be shattered, hope is unimpaired."

Servadac smiled faintly, and replied that he felt rather compelled to take up the despairing cry of Dante, "All hope abandon, ye who enter here."

"Nay, not so," answered the count; "for the present at least, let our maxim be Nil desperandum!"

CHAPTER XVII. A SECOND ENIGMA

Upon re-embarking, the bewildered explorers began to discuss the question whether it would not now be desirable to make their way back to Gourbi Island, which was apparently the only spot in their new world from which they could hope to derive their future sustenance. Captain Servadac tried to console himself with the reflection that Gourbi Island was, after all, a fragment of a French colony, and as such almost like a bit of his dear France; and the plan of returning thither was on the point of being adopted, when Lieutenant Procope remarked that they ought to remember that they had not hitherto made an entire circuit of the new shores of the sea on which they were sailing.

"We have," he said, "neither investigated the northern shore from the site of Cape Antibes to the strait that brought us to Gibraltar, nor have we followed the southern shore that stretches from the strait to the Gulf of Cabes. It is the old coast, and not the new, that we have been tracing; as yet, we cannot say positively that there is no outlet to the south; as yet, we cannot assert that no oasis of the African desert has escaped the catastrophe. Perhaps, even here in the north, we may find that Italy and Sicily and the larger islands of the Mediterranean may still maintain their existence."

"I entirely concur with you," said Count Timascheff. "I quite think we ought to make our survey of the confines of this new basin as complete as possible before we withdraw."

Servadac, although he acknowledged the justness of these observations, could not help pleading that the explorations might be deferred until after a visit had been paid to Gourbi Island.

"Depend upon it, captain, you are mistaken," replied the lieutenant; "the right thing to do is to use the Dobryna while she is available."

"Available! What do you mean?" asked the count, somewhat taken by surprise.

"I mean," said Procope, "that the farther this Gallia of ours recedes from the sun, the lower the temperature will fall. It is likely enough, I think, that before long the sea will be frozen over, and navigation will be impossible. Already you have learned something of the difficulties of traversing a field of ice, and I am sure, therefore, you will acquiesce in my wish to continue our explorations while the water is still open."

"No doubt you are right, lieutenant," said the count. "We will continue

our search while we can for some remaining fragment of Europe. Who shall tell whether we may not meet with some more survivors from the catastrophe, to whom it might be in our power to afford assistance, before we go into our winter quarters?"

Generous and altogether unselfish as this sentiment really was, it was obviously to the general interest that they should become acquainted, and if possible establish friendly relations, with any human inhabitant who might be sharing their own strange destiny in being rolled away upon a new planet into the infinitude of space. All difference of race, all distinction of nationality, must be merged into the one thought that, few as they were, they were the sole surviving representatives of a world which it seemed exceedingly improbable that they would ever see again; and common sense dictated that they were bound to direct all their energies to insure that their asteroid should at least have a united and sympathizing population.

It was on the 25th of February that the yacht left the little creek in which she had taken refuge, and setting off at full steam eastwards, she continued her way along the northern shore. A brisk breeze tended to increase the keenness of the temperature, the thermometer being, on an average, about two degrees below zero. Salt water freezes only at a lower temperature than fresh; the course of the Dobryna was therefore unimpeded by ice, but it could not be concealed that there was the

greatest necessity to maintain the utmost possible speed.

The nights continued lovely; the chilled condition of the atmosphere prevented the formation of clouds; the constellations gleamed forth with unsullied luster; and, much as Lieutenant Procope, from nautical considerations, might regret the absence of the moon, he could not do otherwise than own that the magnificent nights of Gallia were such as must awaken the enthusiasm of an astronomer. And, as if to compensate for the loss of the moonlight, the heavens were illuminated by a superb shower of falling stars, far exceeding, both in number and in brilliancy, the phenomena which are commonly distinguished as the August and November meteors; in fact, Gallia was passing through that meteoric ring which is known to lie exterior to the earth's orbit, but almost concentric with it. The rocky coast, its metallic surface reflecting the glow of the dazzling luminaries, appeared literally stippled with light, whilst the sea, as though spattered with burning hailstones, shone with a phosphorescence that was perfectly splendid. So great, however, was the speed at which Gallia was receding from the sun, that this meteoric storm lasted scarcely more than four and twenty hours.

Next day the direct progress of the Dobryna was arrested by a long projection of land, which obliged her to turn southwards, until she reached what formerly would have been the southern extremity of Corsica. Of this, however, there was now no trace; the Strait of Bonifacio had

been replaced by a vast expanse of water, which had at first all the appearance of being utterly desert; but on the following morning the explorers unexpectedly sighted a little island, which, unless it should prove, as was only too likely, to be of recent origin they concluded, from its situation, must be a portion of the northernmost territory of Sardinia.

The Dobryna approached the land as nearly as was prudent, the boat was lowered, and in a few minutes the count and Servadac had landed upon the islet, which was a mere plot of meadow land, not much more than two acres in extent, dotted here and there with a few myrtle-bushes and lentisks, interspersed with some ancient olives. Having ascertained, as they imagined, that the spot was devoid of living creature, they were on the point of returning to their boat, when their attention was arrested by a faint bleating, and immediately afterwards a solitary she-goat came bounding towards the shore. The creature had dark, almost black hair, and small curved horns, and was a specimen of that domestic breed which, with considerable justice, has gained for itself the title of "the poor man's cow." So far from being alarmed at the presence of strangers, the goat ran nimbly towards them, and then, by its movements and plaintive cries, seemed to be enticing them to follow it.

"Come," said Servadac; "let us see where it will lead us; it is more than probable it is not alone."

The count agreed; and the animal, as if comprehending what was said, trotted on gently for about a hundred paces, and stopped in front of a kind of cave or burrow that was half concealed by a grove of lentisks. Here a little girl, seven or eight years of age, with rich brown hair and lustrous dark eyes, beautiful as one of Murillo's angels, was peeping shyly through the branches. Apparently discovering nothing in the aspect of the strangers to excite her apprehensions, the child suddenly gained confidence, darted forwards with outstretched hands, and in a voice, soft and melodious as the language which she spoke, said in Italian:

"I like you; you will not hurt me, will you?"

"Hurt you, my child?" answered Servadac. "No, indeed; we will be your friends; we will take care of you."

And after a few moments' scrutiny of the pretty maiden, he added:

"Tell us your name, little one."

"Nina!" was the child's reply.

"Well, then, Nina, can you tell us where we are?"

"At Madalena, I think," said the little girl; "at least, I know I was there when that dreadful shock came and altered everything."

The count knew that Madalena was close to Caprera, to the north of Sardinia, which had entirely disappeared in the disaster. By dint of a series of questions, he gained from the child a very intelligent account of her experiences. She told him that she had no parents, and had been employed in taking care of a flock of goats belonging to one of the landowners, when one day, all of a sudden, everything around her, except this little piece of land, had been swallowed up, and that she and Marzy, her pet goat, had been left quite alone. She went on to say that at first she had been very frightened; but when she found that the earth did not shake any more, she had thanked the great God, and had soon made herself very happy living with Marzy. She had enough food, she said, and had been waiting for a boat to fetch her, and now a boat had come and she was quite ready to go away; only they must let her goat go with her: they would both like so much to get back to the old farm.

"Here, at least, is one nice little inhabitant of Gallia," said Captain Servadac, as he caressed the child and conducted her to the boat.

Half an hour later, both Nina and Marzy were safely quartered on board the yacht. It is needless to say that they received the heartiest of

welcomes. The Russian sailors, ever superstitious, seemed almost to regard the coming of the child as the appearance of an angel; and, incredible as it may seem, more than one of them wondered whether she had wings, and amongst themselves they commonly referred to her as "the little Madonna."

Soon out of sight of Madalena, the Dobryna for some hours held a southeasterly course along the shore, which here was fifty leagues in advance of the former coast-line of Italy, demonstrating that a new continent must have been formed, substituted as it were for the old peninsula, of which not a vestige could be identified. At a latitude corresponding with the latitude of Rome, the sea took the form of a deep gulf, extending back far beyond the site of the Eternal City; the coast making a wide sweep round to the former position of Calabria, and jutting far beyond the outline of "the boot," which Italy resembles. But the beacon of Messina was not to be discerned; no trace, indeed, survived of any portion of Sicily; the very peak of Etna, 11,000 feet as it had reared itself above the level of the sea, had vanished utterly.

Another sixty leagues to the south, and the Dobryna sighted the entrance of the strait which had afforded her so providential a refuge from the tempest, and had conducted her to the fragmentary relic of Gibraltar. Hence to the Gulf of Cabes had been already explored, and as it was universally allowed that it was unnecessary to renew the search

in that direction, the lieutenant started off in a transverse course, towards a point hitherto uninvestigated. That point was reached on the 3rd of March, and thence the coast was continuously followed, as it led through what had been Tunis, across the province of Constantine, away to the oasis of Ziban; where, taking a sharp turn, it first reached a latitude of 32 degrees, and then returned again, thus forming a sort of irregular gulf, enclosed by the same unvarying border of mineral concrete. This colossal boundary then stretched away for nearly 150 leagues over the Sahara desert, and, extending to the south of Gourbi Island, occupied what, if Morocco had still existed, would have been its natural frontier.

Adapting her course to these deviations of the coastline, the Dobryna was steering northwards, and had barely reached the limit of the bay, when the attention of all on board was arrested by the phenomenon of a volcano, at least 3,000 feet high, its crater crowned with smoke, which occasionally was streaked by tongues of flame.

"A burning mountain!" they exclaimed.

"Gallia, then, has some internal heat," said Servadac.

"And why not, captain?" rejoined the lieutenant. "If our asteroid has carried with it a portion of the old earth's atmosphere, why should it

not likewise retain something of its central fire?"

"Ah, well!" said the captain, shrugging his shoulders, "I dare say there is caloric enough in our little world to supply the wants of its population."

Count Timascheff interrupted the silence that followed this conversation by saying, "And now, gentlemen, as our course has brought us on our way once more towards Gibraltar, what do you say to our renewing our acquaintance with the Englishmen? They will be interested in the result of our voyage."

"For my part," said Servadac, "I have no desire that way. They know where to find Gourbi Island; they can betake themselves thither just when they please. They have plenty of provisions. If the water freezes, 120 leagues is no very great distance. The reception they gave us was not so cordial that we need put ourselves out of the way to repeat our visit."

"What you say is too true," replied the count. "I hope we shall show them better manners when they condescend to visit us."

"Ay," said Servadac, "we must remember that we are all one people now; no longer Russian, French, or English. Nationality is extinct."

"I am sadly afraid, however," continued the count, "that an Englishman will be an Englishman ever."

"Yes," said the captain, "that is always their failing."

And thus all further thought of making their way again to the little garrison of Gibraltar was abandoned.

But even if their spirit of courtesy had disposed them to renew their acquaintance with the British officers, there were two circumstances that just then would have rendered such a proposal very unadvisable. In the first place, Lieutenant Procope was convinced that it could not be much longer now before the sea would be entirely frozen; and, besides this, the consumption of their coal, through the speed they had maintained, had been so great that there was only too much reason to fear that fuel would fail them. Anyhow, the strictest economy was necessary, and it was accordingly resolved that the voyage should not be much prolonged. Beyond the volcanic peak, moreover, the waters seemed to expand into a boundless ocean, and it might be a thing full of risk to be frozen up while the yacht was so inadequately provisioned. Taking all these things into account, it was agreed that further investigations should be deferred to a more favorable season, and that, without delay, the Dobryna should return to Gourbi Island.

This decision was especially welcome to Hector Servadac, who, throughout the whole of the last five weeks, had been agitated by much anxious thought on account of the faithful servant he had left behind.

The transit from the volcano to the island was not long, and was marked by only one noticeable incident. This was the finding of a second mysterious document, in character precisely similar to what they had found before. The writer of it was evidently engaged upon a calculation, probably continued from day to day, as to the motions of the planet Gallia upon its orbit, and committing the results of his reckonings to the waves as the channel of communication.

Instead of being enclosed in a telescope-case, it was this time secured in a preserved-meat tin, hermetically sealed, and stamped with the same initials on the wax that fastened it. The greatest care was used in opening it, and it was found to contain the following message:

"Gallia Ab sole, au 1 mars, dist. 78,000,000 l.! Chemin parcouru de fev. a mars: 59,000,000 1.! Va bene! All right! Nil desperandum!

"Enchante!"

"Another enigma!" exclaimed Servadac; "and still no intelligible signature, and no address. No clearing up of the mystery!"

"I have no doubt, in my own mind," said the count, "that it is one of a series. It seems to me probable that they are being sent broadcast upon the sea."

"I wonder where the hare-brained savant that writes them can be living?" observed Servadac.

"Very likely he may have met with the fate of AEsop's abstracted astronomer, who found himself at the bottom of a well."

"Ay; but where is that well?" demanded the captain.

This was a question which the count was incapable of settling; and they could only speculate afresh as to whether the author of the riddles was dwelling upon some solitary island, or, like themselves, was navigating the waters of the new Mediterranean. But they could detect nothing to guide them to a definite decision.

After thoughtfully regarding the document for some time. Lieutenant Procope proceeded to observe that he believed the paper might be

considered as genuine, and accordingly, taking its statements as reliable, he deduced two important conclusions: first, that whereas, in the month of January, the distance traveled by the planet (hypothetically called Gallia) had been recorded as 82,000,000 leagues, the distance traveled in February was only 59,000,000 leagues--a difference of 23,000,000 leagues in one month; secondly, that the distance of the planet from the sun, which on the 15th of February had been 59,000,000 leagues, was on the 1st of March 78,000,000 leagues--an increase of 19,000,000 leagues in a fortnight. Thus, in proportion as Gallia receded from the sun, so did the rate of speed diminish by which she traveled along her orbit; facts to be observed in perfect conformity with the known laws of celestial mechanism.

"And your inference?" asked the count.

"My inference," replied the lieutenant, "is a confirmation of my surmise that we are following an orbit decidedly elliptical, although we have not yet the material to determine its eccentricity."

"As the writer adheres to the appellation of Gallia, do you not think," asked the count, "that we might call these new waters the Gallian Sea?"

"There can be no reason to the contrary, count," replied the lieutenant; "and as such I will insert it upon my new chart."

"Our friend," said Servadac, "seems to be more and more gratified with the condition of things; not only has he adopted our motto, 'Nil desperandum!' but see how enthusiastically he has wound up with his 'Enchante!'"

The conversation dropped.

A few hours later the man on watch announced that Gourbi Island was in sight.

CHAPTER XVIII. AN UNEXPECTED POPULATION

The Dobryna was now back again at the island. Her cruise had lasted from the 31st of January to the 5th of March, a period of thirty-five days (for it was leap year), corresponding to seventy days as accomplished by the new little world.

Many a time during his absence Hector Servadac had wondered how his present vicissitudes would end, and he had felt some misgivings as to whether he should ever again set foot upon the island, and see his faithful orderly, so that it was not without emotion that he had approached the coast of the sole remaining fragment of Algerian soil. But his apprehensions were groundless; Gourbi Island was just as he had left it, with nothing unusual in its aspect, except that a very peculiar cloud was hovering over it, at an altitude of little more than a hundred feet. As the yacht approached the shore, this cloud appeared to rise and fall as if acted upon by some invisible agency, and the captain, after watching it carefully, perceived that it was not an accumulation of vapors at all, but a dense mass of birds packed as closely together as a swarm of herrings, and uttering deafening and discordant cries, amidst which from time to time the noise of the report of a gun could be plainly distinguished.

The Dobryna signalized her arrival by firing her cannon, and dropped anchor in the little port of the Shelif. Almost within a minute Ben Zoof was seen running, gun in hand, towards the shore; he cleared the last ridge of rocks at a single bound, and then suddenly halted. For a few seconds he stood motionless, his eyes fixed, as if obeying the instructions of a drill sergeant, on a point some fifteen yards distant, his whole attitude indicating submission and respect; but the sight of the captain, who was landing, was too much for his equanimity, and darting forward, he seized his master's hand and covered it with kisses. Instead, however, of uttering any expressions of welcome or rejoicing at the captain's return, Ben Zoof broke out into the most vehement ejaculations.

"Thieves, captain! beastly thieves! Bedouins! pirates! devils!"

"Why, Ben Zoof, what's the matter?" said Servadac soothingly.

"They are thieves! downright, desperate thieves! those infernal birds! That's what's the matter. It is a good thing you have come. Here have I for a whole month been spending my powder and shot upon them, and the more I kill them, the worse they get; and yet, if I were to leave them alone, we should not have a grain of corn upon the island."

It was soon evident that the orderly had only too much cause for alarm.

The crops had ripened rapidly during the excessive heat of January, when the orbit of Gallia was being traversed at its perihelion, and were now exposed to the depredations of many thousands of birds; and although a goodly number of stacks attested the industry of Ben Zoof during the time of the Dobryna's voyage, it was only too apparent that the portion of the harvest that remained ungathered was liable to the most imminent risk of being utterly devoured. It was, perhaps, only natural that this clustered mass of birds, as representing the whole of the feathered tribe upon the surface of Gallia, should resort to Gourbi Island, of which the meadows seemed to be the only spot from which they could get sustenance at all; but as this sustenance would be obtained at the expense, and probably to the serious detriment, of the human population, it was absolutely necessary that every possible resistance should be made to the devastation that was threatened.

Once satisfied that Servadac and his friends would cooperate with him in the raid upon "the thieves," Ben Zoof became calm and content, and began to make various inquiries. "And what has become," he said, "of all our old comrades in Africa?"

"As far as I can tell you," answered the captain, "they are all in Africa still; only Africa isn't by any means where we expected to find it."

"And France? Montmartre?" continued Ben Zoof eagerly. Here was the cry of the poor fellow's heart.

As briefly as he could, Servadac endeavored to explain the true condition of things; he tried to communicate the fact that Paris, France, Europe, nay, the whole world was more than eighty millions of leagues away from Gourbi Island; as gently and cautiously as he could he expressed his fear that they might never see Europe, France, Paris, Montmartre again.

"No, no, sir!" protested Ben Zoof emphatically; "that is all nonsense. It is altogether out of the question to suppose that we are not to see Montmartre again." And the orderly shook his head resolutely, with the air of a man determined, in spite of argument, to adhere to his own opinion.

"Very good, my brave fellow," replied Servadac, "hope on, hope while you may. The message has come to us over the sea, 'Never despair'; but one thing, nevertheless, is certain; we must forthwith commence arrangements for making this island our permanent home."

Captain Servadac now led the way to the gourbi, which, by his servant's exertions, had been entirely rebuilt; and here he did the honors of his modest establishment to his two guests, the count and the lieutenant,

and gave a welcome, too, to little Nina, who had accompanied them on shore, and between whom and Ben Zoof the most friendly relations had already been established.

The adjacent building continued in good preservation, and Captain Servadac's satisfaction was very great in finding the two horses, Zephyr and Galette, comfortably housed there and in good condition.

After the enjoyment of some refreshment, the party proceeded to a general consultation as to what steps must be taken for their future welfare. The most pressing matter that came before them was the consideration of the means to be adopted to enable the inhabitants of Gallia to survive the terrible cold, which, in their ignorance of the true eccentricity of their orbit, might, for aught they knew, last for an almost indefinite period. Fuel was far from abundant; of coal there was none; trees and shrubs were few in number, and to cut them down in prospect of the cold seemed a very questionable policy; but there was no doubt some expedient must be devised to prevent disaster, and that without delay.

The victualing of the little colony offered no immediate difficulty. Water was abundant, and the cisterns could hardly fail to be replenished by the numerous streams that meandered along the plains; moreover, the Gallian Sea would ere long be frozen over, and the melted ice (water

in its congealed state being divested of every particle of salt) would afford a supply of drink that could not be exhausted. The crops that were now ready for the harvest, and the flocks and herds scattered over the island, would form an ample reserve. There was little doubt that throughout the winter the soil would remain unproductive, and no fresh fodder for domestic animals could then be obtained; it would therefore be necessary, if the exact duration of Gallia's year should ever be calculated, to proportion the number of animals to be reserved to the real length of the winter.

The next thing requisite was to arrive at a true estimate of the number of the population. Without including the thirteen Englishmen at Gibraltar, about whom he was not particularly disposed to give himself much concern at present, Servadac put down the names of the eight Russians, the two Frenchman, and the little Italian girl, eleven in all, as the entire list of the inhabitants of Gourbi Island.

"Oh, pardon me," interposed Ben Zoof, "you are mistaking the state of the case altogether. You will be surprised to learn that the total of people on the island is double that. It is twenty-two."

"Twenty-two!" exclaimed the captain; "twenty-two people on this island? What do you mean?"

"The opportunity has not occurred," answered Ben Zoof, "for me to tell you before, but I have had company."

"Explain yourself, Ben Zoof," said Servadac. "What company have you had?"

"You could not suppose," replied the orderly, "that my own unassisted hands could have accomplished all that harvest work that you see has been done."

"I confess," said Lieutenant Procope, "we do not seem to have noticed that."

"Well, then," said Ben Zoof, "if you will be good enough to come with me for about a mile, I shall be able to show you my companions. But we must take our guns."

"Why take our guns?" asked Servadac. "I hope we are not going to fight."

"No, not with men," said Ben Zoof; "but it does not answer to throw a chance away for giving battle to those thieves of birds."

Leaving little Nina and her goat in the gourbi, Servadac, Count Timascheff, and the lieutenant, greatly mystified, took up their guns

and followed the orderly. All along their way they made unsparing slaughter of the birds that hovered over and around them. Nearly every species of the feathered tribe seemed to have its representative in that living cloud. There were wild ducks in thousands; snipe, larks, rooks, and swallows; a countless variety of sea-birds--widgeons, gulls, and seamews; beside a quantity of game--quails, partridges, and woodcocks. The sportsmen did their best; every shot told; and the depredators fell by dozens on either hand.

Instead of following the northern shore of the island, Ben Zoof cut obliquely across the plain. Making their progress with the unwonted rapidity which was attributable to their specific lightness, Servadac and his companions soon found themselves near a grove of sycamores and eucalyptus massed in picturesque confusion at the base of a little hill. Here they halted.

"Ah! the vagabonds! the rascals! the thieves!" suddenly exclaimed Ben Zoof, stamping his foot with rage.

"How now? Are your friends the birds at their pranks again?" asked the captain.

"No, I don't mean the birds: I mean those lazy beggars that are shirking their work. Look here; look there!" And as Ben Zoof spoke, he pointed

to some scythes, and sickles, and other implements of husbandry that had been left upon the ground.

"What is it you mean?" asked Servadac, getting somewhat impatient.

"Hush, hush! listen!" was all Ben Zoof's reply; and he raised his finger as if in warning.

Listening attentively, Servadac and his associates could distinctly recognize a human voice, accompanied by the notes of a guitar and by the measured click of castanets.

"Spaniards!" said Servadac.

"No mistake about that, sir," replied Ben Zoof; "a Spaniard would rattle his castanets at the cannon's mouth."

"But what is the meaning of it all?" asked the captain, more puzzled than before.

"Hark!" said Ben Zoof; "it is the old man's turn."

And then a voice, at once gruff and harsh, was heard vociferating, "My money! my money! when will you pay me my money? Pay me what you owe me,

you miserable majos."

Meanwhile the song continued:

"Tu sandunga y cigarro,
Y una cana de Jerez,
Mi jamelgo y un trabuco,
Que mas gloria puede haver?"

Servadac's knowledge of Gascon enabled him partially to comprehend the rollicking tenor of the Spanish patriotic air, but his attention was again arrested by the voice of the old man growling savagely, "Pay me you shall; yes, by the God of Abraham, you shall pay me."

"A Jew!" exclaimed Servadac.

"Ay, sir, a German Jew," said Ben Zoof.

The party was on the point of entering the thicket, when a singular spectacle made them pause. A group of Spaniards had just begun dancing their national fandango, and the extraordinary lightness which had become the physical property of every object in the new planet made the dancers bound to a height of thirty feet or more into the air, considerably above the tops of the trees. What followed was irresistibly

comic. Four sturdy majos had dragged along with them an old man incapable of resistance, and compelled him, nolens volens, to join in the dance; and as they all kept appearing and disappearing above the bank of foliage, their grotesque attitudes, combined with the pitiable countenance of their helpless victim, could not do otherwise than recall most forcibly the story of Sancho Panza tossed in a blanket by the merry drapers of Segovia.

Servadac, the count, Procope, and Ben Zoof now proceeded to make their way through the thicket until they came to a little glade, where two men were stretched idly on the grass, one of them playing the guitar, and the other a pair of castanets; both were exploding with laughter, as they urged the performers to greater and yet greater exertions in the dance. At the sight of strangers they paused in their music, and simultaneously the dancers, with their victim, alighted gently on the sward.

Breathless and half exhausted as was the Jew, he rushed with an effort towards Servadac, and exclaimed in French, marked by a strong Teutonic accent, "Oh, my lord governor, help me, help! These rascals defraud me of my rights; they rob me; but, in the name of the God of Israel, I ask you to see justice done!"

The captain glanced inquiringly towards Ben Zoof, and the orderly, by a

significant nod, made his master understand that he was to play the part that was implied by the title. He took the cue, and promptly ordered the Jew to hold his tongue at once. The man bowed his head in servile submission, and folded his hands upon his breast.

Servadac surveyed him leisurely. He was a man of about fifty, but from his appearance might well have been taken for at least ten years older. Small and skinny, with eyes bright and cunning, a hooked nose, a short yellow beard, unkempt hair, huge feet, and long bony hands, he presented all the typical characteristics of the German Jew, the heartless, wily usurer, the hardened miser and skinflint. As iron is attracted by the magnet, so was this Shylock attracted by the sight of gold, nor would he have hesitated to draw the life-blood of his creditors, if by such means he could secure his claims.

His name was Isaac Hakkabut, and he was a native of Cologne. Nearly the whole of his time, however, he informed Captain Servadac, had been spent upon the sea, his real business being that of a merchant trading at all the ports of the Mediterranean. A tartan, a small vessel of two hundred tons burden, conveyed his entire stock of merchandise, and, to say the truth, was a sort of floating emporium, conveying nearly every possible article of commerce, from a lucifer match to the radiant fabrics of Frankfort and Epinal. Without wife or children, and having no settled home, Isaac Hakkabut lived almost entirely on board the Hansa, as he

had named his tartan; and engaging a mate, with a crew of three men, as being adequate to work so light a craft, he cruised along the coasts of Algeria, Tunis, Egypt, Turkey, and Greece, visiting, moreover, most of the harbors of the Levant. Careful to be always well supplied with the products in most general demand--coffee, sugar, rice, tobacco, cotton stuffs, and gunpowder--and being at all times ready to barter, and prepared to deal in secondhand wares, he had contrived to amass considerable wealth.

On the eventful night of the 1st of January the Hansa had been at Ceuta, the point on the coast of Morocco exactly opposite Gibraltar. The mate and three sailors had all gone on shore, and, in common with many of their fellow-creatures, had entirely disappeared; but the most projecting rock of Ceuta had been undisturbed by the general catastrophe, and half a score of Spaniards, who had happened to be upon it, had escaped with their lives. They were all Andalusian majos, agricultural laborers, and naturally as careless and apathetic as men of their class usually are, but they could not help being very considerably embarrassed when they discovered that they were left in solitude upon a detached and isolated rock. They took what mutual counsel they could, but became only more and more perplexed. One of them was named Negrete, and he, as having traveled somewhat more than the rest, was tacitly recognized as a sort of leader; but although he was by far the most enlightened of them all, he was quite incapable of forming the least

conception of the nature of what had occurred. The one thing upon which they could not fail to be conscious was that they had no prospect of obtaining provisions, and consequently their first business was to devise a scheme for getting away from their present abode. The Hansa was lying off shore. The Spaniards would not have had the slightest hesitation in summarily taking possession of her, but their utter ignorance of seamanship made them reluctantly come to the conclusion that the more prudent policy was to make terms with the owner.

And now came a singular part of the story. Negrete and his companions had meanwhile received a visit from two English officers from Gibraltar. What passed between them the Jew did not know; he only knew that, immediately after the conclusion of the interview, Negrete came to him and ordered him to set sail at once for the nearest point of Morocco. The Jew, afraid to disobey, but with his eye ever upon the main chance, stipulated that at the end of their voyage the Spaniards should pay for their passage--terms to which, as they would to any other, they did not demur, knowing that they had not the slightest intention of giving him a single real.

The Hansa had weighed anchor on the 3rd of February. The wind blew from the west, and consequently the working of the tartan was easy enough. The unpracticed sailors had only to hoist their sails and, though they were quite unconscious of the fact, the breeze carried them

to the only spot upon the little world they occupied which could afford them a refuge.

Thus it fell out that one morning Ben Zoof, from his lookout on Gourbi Island, saw a ship, not the Dobryna, appear upon the horizon, and make quietly down towards what had formerly been the right bank of the Shelif.

Such was Ben Zoof's version of what had occurred, as he had gathered it from the new-comers. He wound up his recital by remarking that the cargo of the Hansa would be of immense service to them; he expected, indeed, that Isaac Hakkabut would be difficult to manage, but considered there could be no harm in appropriating the goods for the common welfare, since there could be no opportunity now for selling them.

Ben Zoof added, "And as to the difficulties between the Jew and his passengers, I told him that the governor general was absent on a tour of inspection, and that he would see everything equitably settled."

Smiling at his orderly's tactics, Servadac turned to Hakkabut, and told him that he would take care that his claims should be duly investigated and all proper demands should be paid. The man appeared satisfied, and, for the time at least, desisted from his complaints and importunities.

When the Jew had retired, Count Timascheff asked, "But how in the world can you ever make those fellows pay anything?"

"They have lots of money," said Ben Zoof.

"Not likely," replied the count; "when did you ever know Spaniards like them to have lots of money?"

"But I have seen it myself," said Ben Zoof; "and it is English money."

"English money!" echoed Servadac; and his mind again reverted to the excursion made by the colonel and the major from Gibraltar, about which they had been so reticent. "We must inquire more about this," he said.

Then, addressing Count Timascheff, he added, "Altogether, I think the countries of Europe are fairly represented by the population of Gallia."

"True, captain," answered the count; "we have only a fragment of a world, but it contains natives of France, Russia, Italy, Spain, and England. Even Germany may be said to have a representative in the person of this miserable Jew."

"And even in him," said Servadac, "perhaps we shall not find so indifferent a representative as we at present imagine."

CHAPTER XIX. GALLIA'S GOVERNOR GENERAL

The Spaniards who had arrived on board the Hansa consisted of nine men and a lad of twelve years of age, named Pablo. They all received Captain Servadac, whom Ben Zoof introduced as the governor general, with due respect, and returned quickly to their separate tasks. The captain and his friends, followed at some distance by the eager Jew, soon left the glade and directed their steps towards the coast where the Hansa was moored.

As they went they discussed their situation. As far as they had ascertained, except Gourbi Island, the sole surviving fragments of the Old World were four small islands: the bit of Gibraltar occupied by the Englishmen; Ceuta, which had just been left by the Spaniards; Madalena, where they had picked up the little Italian girl; and the site of the tomb of Saint Louis on the coast of Tunis. Around these there was stretched out the full extent of the Gallian Sea, which apparently comprised about one-half of the Mediterranean, the whole being encompassed by a barrier like a framework of precipitous cliffs, of an origin and a substance alike unknown.

Of all these spots only two were known to be inhabited: Gibraltar, where

the thirteen Englishmen were amply provisioned for some years to come, and their own Gourbi Island. Here there was a population of twenty-two, who would all have to subsist upon the natural products of the soil.
It was indeed not to be forgotten that, perchance, upon some remote and undiscovered isle there might be the solitary writer of the mysterious papers which they had found, and if so, that would raise the census of their new asteroid to an aggregate of thirty-six.

Even upon the supposition that at some future date the whole population should be compelled to unite and find a residence upon Gourbi Island, there did not appear any reason to question but that eight hundred acres of rich soil, under good management, would yield them all an ample sustenance. The only critical matter was how long the cold season would last; every hope depended upon the land again becoming productive; at present, it seemed impossible to determine, even if Gallia's orbit were really elliptic, when she would reach her aphelion, and it was consequently necessary that the Gallians for the time being should reckon on nothing beyond their actual and present resources.

These resources were, first, the provisions of the Dobryna, consisting of preserved meat, sugar, wine, brandy, and other stores sufficient for about two months; secondly, the valuable cargo of the Hansa, which, sooner or later, the owner, whether he would or not, must be compelled to surrender for the common benefit; and lastly, the produce of the

island, animal and vegetable, which with proper economy might be made to last for a considerable period.

In the course of the conversation, Count Timascheff took an opportunity of saying that, as Captain Servadac had already been presented to the Spaniards as governor of the island, he thought it advisable that he should really assume that position.

"Every body of men," he observed, "must have a head, and you, as a Frenchman, should, I think, take the command of this fragment of a French colony. My men, I can answer for it, are quite prepared to recognize you as their superior officer."

"Most unhesitatingly," replied Servadac, "I accept the post with all its responsibilities. We understand each other so well that I feel sure we shall try and work together for the common good; and even if it be our fate never again to behold our fellow creatures, I have no misgivings but that we shall be able to cope with whatever difficulties may be before us."

As he spoke, he held out his hand. The count took it, at the same time making a slight bow. It was the first time since their meeting that the two men had shaken hands; on the other hand, not a single word about their former rivalry had ever escaped their lips; perhaps that was all

forgotten now.

The silence of a few moments was broken by Servadac saying, "Do you not think we ought to explain our situation to the Spaniards?"

"No, no, your Excellency," burst in Ben Zoof, emphatically; "the fellows are chicken-hearted enough already; only tell them what has happened, and in sheer despondency they will not do another stroke of work."

"Besides," said Lieutenant Procope, who took very much the same view as the orderly, "they are so miserably ignorant they would be sure to misunderstand you."

"Understand or misunderstand," replied Servadac, "I do not think it matters. They would not care. They are all fatalists. Only give them a guitar and their castanets, and they will soon forget all care and anxiety. For my own part, I must adhere to my belief that it will be advisable to tell them everything. Have you any opinion to offer, count?"

"My own opinion, captain, coincides entirely with yours. I have followed the plan of explaining all I could to my men on board the Dobryna, and no inconvenience has arisen."

"Well, then, so let it be," said the captain; adding, "It is not likely that these Spaniards are so ignorant as not to have noticed the change in the length of the days; neither can they be unaware of the physical changes that have transpired. They shall certainly be told that we are being carried away into unknown regions of space, and that this island is nearly all that remains of the Old World."

"Ha! ha!" laughed Ben Zoof, aloud; "it will be fine sport to watch the old Jew's face, when he is made to comprehend that he is flying away millions and millions of leagues from all his debtors."

Isaac Hakkabut was about fifty yards behind, and was consequently unable to overhear the conversation. He went shambling along, half whimpering and not unfrequently invoking the God of Israel; but every now and then a cunning light gleamed from his eyes, and his lips became compressed with a grim significance.

None of the recent phenomena had escaped his notice, and more than once he had attempted to entice Ben Zoof into conversation upon the subject; but the orderly made no secret of his antipathy to him, and generally replied to his advances either by satire or by banter. He told him that he had everything to gain under the new system of nights and days, for, instead of living the Jew's ordinary life of a century, he would reach to the age of two centuries; and he congratulated him upon the

circumstance of things having become so light, because it would prevent him feeling the burden of his years. At another time he would declare that, to an old usurer like him, it could not matter in the least what had become of the moon, as he could not possibly have advanced any money upon her. And when Isaac, undaunted by his jeers, persevered in besetting him with questions, he tried to silence him by saying, "Only wait till the governor general comes; he is a shrewd fellow, and will tell you all about it."

"But will he protect my property?" poor Isaac would ask tremulously.

"To be sure he will! He would confiscate it all rather than that you should be robbed of it."

With this Job's comfort the Jew had been obliged to content himself as best he could, and to await the promised arrival of the governor.

When Servadac and his companions reached the shore, they found that the Hansa had anchored in an exposed bay, protected but barely by a few projecting rocks, and in such a position that a gale rising from the west would inevitably drive her on to the land, where she must be dashed in pieces. It would be the height of folly to leave her in her present moorings; without loss of time she must be brought round to the mouth of the Shelif, in immediate proximity to the Russian yacht.

The consciousness that his tartan was the subject of discussion made the Jew give way to such vehement ejaculations of anxiety, that Servadac turned round and peremptorily ordered him to desist from his clamor. Leaving the old man under the surveillance of the count and Ben Zoof, the captain and the lieutenant stepped into a small boat and were soon alongside the floating emporium.

A very short inspection sufficed to make them aware that both the tartan and her cargo were in a perfect state of preservation. In the hold were sugar-loaves by hundreds, chests of tea, bags of coffee, hogsheads of tobacco, pipes of wine, casks of brandy, barrels of dried herrings, bales of cotton, clothing of every kind, shoes of all sizes, caps of various shape, tools, household utensils, china and earthenware, reams of paper, bottles of ink, boxes of lucifer matches, blocks of salt, bags of pepper and spices, a stock of huge Dutch cheeses, and a collection of almanacs and miscellaneous literature. At a rough guess the value could not be much under pounds 5,000 sterling. A new cargo had been taken in only a few days before the catastrophe, and it had been Isaac Hakkabut's intention to cruise from Ceuta to Tripoli, calling wherever he had reason to believe there was likely to be a market for any of his commodities.

"A fine haul, lieutenant," said the captain.

"Yes, indeed," said the lieutenant; "but what if the owner refuses to part with it?"

"No fear; no fear," replied the captain. "As soon as ever the old rascal finds that there are no more Arabs or Algerians for him to fleece, he will be ready enough to transact a little business with us. We will pay him by bills of acceptance on some of his old friends in the Old World."

"But why should he want any payment?" inquired the lieutenant. "Under the circumstances, he must know that you have a right to make a requisition of his goods."

"No, no," quickly rejoined Servadac; "we will not do that. Just because the fellow is a German we shall not be justified in treating him in German fashion. We will transact our business in a business way. Only let him once realize that he is on a new globe, with no prospect of getting back to the old one, and he will be ready enough to come to terms with us."

"Perhaps you are right," replied the lieutenant; "I hope you are. But anyhow, it will not do to leave the tartan here; not only would she be in danger in the event of a storm, but it is very questionable whether she could resist the pressure of the ice, if the water were to freeze."

"Quite true, Procope; and accordingly I give you the commission to see that your crew bring her round to the Shelif as soon as may be."

"To-morrow morning it shall be done," answered the lieutenant, promptly.

Upon returning to the shore, it was arranged that the whole of the little colony should forthwith assemble at the gourbi. The Spaniards were summoned and Isaac, although he could only with reluctance take his wistful gaze from his tartan, obeyed the governor's orders to follow.

An hour later and the entire population of twenty-two had met in the chamber adjoining the gourbi. Young Pablo made his first acquaintance with little Nina, and the child seemed highly delighted to find a companion so nearly of her own age. Leaving the children to entertain each other, Captain Servadac began his address.

Before entering upon further explanation, he said that he counted upon the cordial co-operation of them all for the common welfare.

Negrete interrupted him by declaring that no promises or pledges could be given until he and his countrymen knew how soon they could be sent back to Spain.

"To Spain, do you say?" asked Servadac.

"To Spain!" echoed Isaac Hakkabut, with a hideous yell. "Do they expect to go back to Spain till they have paid their debts? Your Excellency, they owe me twenty reals apiece for their passage here; they owe me two hundred reals. Are they to be allowed...?"

"Silence, Mordecai, you fool!" shouted Ben Zoof, who was accustomed to call the Jew by any Hebrew name that came uppermost to his memory. "Silence!"

Servadac was disposed to appease the old man's anxiety by promising to see that justice was ultimately done; but, in a fever of frantic excitement, he went on to implore that he might have the loan of a few sailors to carry his ship to Algiers.

"I will pay you honestly; I will pay you well," he cried; but his ingrained propensity for making a good bargain prompted him to add, "provided you do not overcharge me."

Ben Zoof was about again to interpose some angry exclamation; but Servadac checked him, and continued in Spanish: "Listen to me, my friends. Something very strange has happened. A most wonderful event has cut us off from Spain, from France, from Italy, from every country

of Europe. In fact, we have left the Old World entirely. Of the whole earth, nothing remains except this island on which you are now taking refuge. The old globe is far, far away. Our present abode is but an insignificant fragment that is left. I dare not tell you that there is any chance of your ever again seeing your country or your homes."

He paused. The Spaniards evidently had no conception of his meaning.

Negrete begged him to tell them all again. He repeated all that he had said, and by introducing some illustrations from familiar things, he succeeded to a certain extent in conveying some faint idea of the convulsion that had happened. The event was precisely what he had foretold. The communication was received by all alike with the most supreme indifference.

Hakkabut did not say a word. He had listened with manifest attention, his lips twitching now and then as if suppressing a smile. Servadac turned to him, and asked whether he was still disposed to put out to sea and make for Algiers.

The Jew gave a broad grin, which, however, he was careful to conceal from the Spaniards. "Your Excellency jests," he said in French; and turning to Count Timascheff, he added in Russian: "The governor has made up a wonderful tale."

The count turned his back in disgust, while the Jew sidled up to little Nina and muttered in Italian. "A lot of lies, pretty one; a lot of lies!"

"Confound the knave!" exclaimed Ben Zoof; "he gabbles every tongue under the sun!"

"Yes," said Servadac; "but whether he speaks French, Russian, Spanish, German, or Italian, he is neither more nor less than a Jew."

CHAPTER XX. A LIGHT ON THE HORIZON

On the following day, without giving himself any further concern about the Jew's incredulity, the captain gave orders for the Hansa to be shifted round to the harbor of the Shelif. Hakkabut raised no objection, not only because he was aware that the move insured the immediate safety of his tartan, but because he was secretly entertaining the hope that he might entice away two or three of the Dobryna's crew and make his escape to Algiers or some other port.

Operations now commenced for preparing proper winter quarters. Spaniards and Russians alike joined heartily in the work, the diminution of atmospheric pressure and of the force of attraction contributing such an increase to their muscular force as materially facilitated all their labors.

The first business was to accommodate the building adjacent to the gourbi to the wants of the little colony. Here for the present the Spaniards were lodged, the Russians retaining their berths upon the yacht, while the Jew was permitted to pass his nights upon the Hansa. This arrangement, however, could be only temporary. The time could not be far distant when ships' sides and ordinary walls would fail to give an adequate protection from the severity of the cold that must

be expected; the stock of fuel was too limited to keep up a permanent supply of heat in their present quarters, and consequently they must be driven to seek some other refuge, the internal temperature of which would at least be bearable.

The plan that seemed to commend itself most to their consideration was, that they should dig out for themselves some subterraneous pits similar to "silos," such as are used as receptacles for grain. They presumed that when the surface of Gallia should be covered by a thick layer of ice, which is a bad conductor of heat, a sufficient amount of warmth for animal vitality might still be retained in excavations of this kind. After a long consultation they failed to devise any better expedient, and were forced to resign themselves to this species of troglodyte existence.

In one respect they congratulated themselves that they should be better off than many of the whalers in the polar seas, for as it is impossible to get below the surface of a frozen ocean, these adventurers have to seek refuge in huts of wood and snow erected on their ships, which at best can give but slight protection from extreme cold; but here, with a solid subsoil, the Gallians might hope to dig down a hundred feet or so and secure for themselves a shelter that would enable them to brave the hardest severity of climate.

The order, then, was at once given. The work was commenced. A stock of shovels, mattocks, and pick-axes was brought from the gourbi, and with Ben Zoof as overseer, both Spanish majos and Russian sailors set to work with a will.

It was not long, however, before a discovery, more unexpected than agreeable, suddenly arrested their labors. The spot chosen for the excavation was a little to the right of the gourbi, on a slight elevation of the soil. For the first day everything went on prosperously enough; but at a depth of eight feet below the surface, the navvies came in contact with a hard surface, upon which all their tools failed to make the slightest impression. Servadac and the count were at once apprised of the fact, and had little difficulty in recognizing the substance that had revealed itself as the very same which composed the shores as well as the subsoil of the Gallian sea. It evidently formed the universal substructure of the new asteroid. Means for hollowing it failed them utterly. Harder and more resisting than granite, it could not be blasted by ordinary powder; dynamite alone could suffice to rend it.

The disappointment was very great. Unless some means of protection were speedily devised, death seemed to be staring them in the face. Were the figures in the mysterious documents correct? If so, Gallia must now be a hundred millions of leagues from the sun, nearly three times the

distance of the earth at the remotest section of her orbit. The intensity of the solar light and heat, too, was very seriously diminishing, although Gourbi Island (being on the equator of an orb which had its axes always perpendicular to the plane in which it revolved) enjoyed a position that gave it a permanent summer. But no advantage of this kind could compensate for the remoteness of the sun. The temperature fell steadily; already, to the discomfiture of the little Italian girl, nurtured in sunshine, ice was beginning to form in the crevices of the rocks, and manifestly the time was impending when the sea itself would freeze.

Some shelter must be found before the temperature should fall to 60 degrees below zero. Otherwise death was inevitable. Hitherto, for the last few days, the thermometer had been registering an average of about 6 degrees below zero, and it had become matter of experience that the stove, although replenished with all the wood that was available, was altogether inadequate to effect any sensible mitigation of the severity of the cold. Nor could any amount of fuel be enough. It was certain that ere long the very mercury and spirit in the thermometers would be congealed. Some other resort must assuredly be soon found, or they must perish. That was clear.

The idea of betaking themselves to the Dobryna and Hansa could not for a moment be seriously entertained; not only did the structure of the

vessels make them utterly insufficient to give substantial shelter, but they were totally unfitted to be trusted as to their stability when exposed to the enormous pressure of the accumulated ice.

Neither Servadac, nor the count, nor Lieutenant Procope were men to be easily disheartened, but it could not be concealed that they felt themselves in circumstances by which they were equally harassed and perplexed. The sole expedient that their united counsel could suggest was to obtain a refuge below ground, and that was denied them by the strange and impenetrable substratum of the soil; yet hour by hour the sun's disc was lessening in its dimensions, and although at midday some faint radiance and glow were to be distinguished, during the night the painfulness of the cold was becoming almost intolerable.

Mounted upon Zephyr and Galette, the captain and the count scoured the island in search of some available retreat. Scarcely a yard of ground was left unexplored, the horses clearing every obstacle as if they were, like Pegasus, furnished with wings. But all in vain. Soundings were made again and again, but invariably with the same result; the rock, hard as adamant, never failed to reveal itself within a few feet of the surface of the ground.

The excavation of any silo being thus manifestly hopeless, there seemed nothing to be done except to try and render the buildings alongside the

gourbi impervious to frost. To contribute to the supply of fuel, orders were given to collect every scrap of wood, dry or green, that the island produced; and this involved the necessity of felling the numerous trees that were scattered over the plain. But toil as they might at the accumulation of firewood, Captain Servadac and his companions could not resist the conviction that the consumption of a very short period would exhaust the total stock. And what would happen then?

Studious if possible to conceal his real misgivings, and anxious that the rest of the party should be affected as little as might be by his own uneasiness, Servadac would wander alone about the island, racking his brain for an idea that would point the way out of the serious difficulty. But still all in vain.

One day he suddenly came upon Ben Zoof, and asked him whether he had no plan to propose. The orderly shook his head, but after a few moments' pondering, said: "Ah! master, if only we were at Montmartre, we would get shelter in the charming stone-quarries."

"Idiot!" replied the captain, angrily, "if we were at Montmartre, you don't suppose that we should need to live in stone-quarries?"

But the means of preservation which human ingenuity had failed to secure were at hand from the felicitous provision of Nature herself. It was on

the 10th of March that the captain and Lieutenant Procope started off once more to investigate the northwest corner of the island; on their way their conversation naturally was engrossed by the subject of the dire necessities which only too manifestly were awaiting them. A discussion more than usually animated arose between them, for the two men were not altogether of the same mind as to the measures that ought to be adopted in order to open the fairest chance of avoiding a fatal climax to their exposure; the captain persisted that an entirely new abode must be sought, while the lieutenant was equally bent upon devising a method of some sort by which their present quarters might be rendered sufficiently warm. All at once, in the very heat of his argument, Procope paused; he passed his hand across his eyes, as if to dispel a mist, and stood, with a fixed gaze centered on a point towards the south. "What is that?" he said, with a kind of hesitation. "No, I am not mistaken," he added; "it is a light on the horizon."

"A light!" exclaimed Servadac; "show me where."

"Look there!" answered the lieutenant, and he kept pointing steadily in its direction, until Servadac also distinctly saw the bright speck in the distance.

It increased in clearness in the gathering shades of evening. "Can it be a ship?" asked the captain.

"If so, it must be in flames; otherwise we should not be able to see it so far off," replied Procope.

"It does not move," said Servadac; "and unless I am greatly deceived, I can hear a kind of reverberation in the air."

For some seconds the two men stood straining eyes and ears in rapt attention. Suddenly an idea struck Servadac's mind. "The volcano!" he cried; "may it not be the volcano that we saw, whilst we were on board the Dobryna?"

The lieutenant agreed that it was very probable.

"Heaven be praised!" ejaculated the captain, and he went on in the tones of a keen excitement: "Nature has provided us with our winter quarters; the stream of burning lava that is flowing there is the gift of a bounteous Providence; it will provide us all the warmth we need. No time to lose! To-morrow, my dear Procope, to-morrow we will explore it all; no doubt the life, the heat we want is reserved for us in the heart and bowels of our own Gallia!"

Whilst the captain was indulging in his expressions of enthusiasm, Procope was endeavoring to collect his thoughts. Distinctly he

remembered the long promontory which had barred the Dobryna's progress while coasting the southern confines of the sea, and which had obliged her to ascend northwards as far as the former latitude of Oran; he remembered also that at the extremity of the promontory there was a rocky headland crowned with smoke; and now he was convinced that he was right in identifying the position, and in believing that the smoke had given place to an eruption of flame.

When Servadac gave him a chance of speaking, he said, "The more I consider it, captain, the more I am satisfied that your conjecture is correct. Beyond a doubt, what we see is the volcano, and to-morrow we will not fail to visit it."

On returning to the gourbi, they communicated their discovery to Count Timascheff only, deeming any further publication of it to be premature. The count at once placed his yacht at their disposal, and expressed his intention of accompanying them.

"The yacht, I think," said Procope, "had better remain where she is; the weather is beautifully calm, and the steam-launch will answer our purpose better; at any rate, it will convey us much closer to shore than the schooner."

The count replied that the lieutenant was by all means to use his own

discretion, and they all retired for the night.

Like many other modern pleasure-yachts, the Dobryna, in addition to her four-oar, was fitted with a fast-going little steam-launch, its screw being propelled, on the Oriolle system, by means of a boiler, small but very effective. Early next morning, this handy little craft was sufficiently freighted with coal (of which there was still about ten tons on board the Dobryna), and manned by nobody except the captain, the count, and the lieutenant, left the harbor of the Shelif, much to the bewilderment of Ben Zoof, who had not yet been admitted into the secret. The orderly, however, consoled himself with the reflection that he had been temporarily invested with the full powers of governor general, an office of which he was not a little proud.

The eighteen miles between the island and the headland were made in something less than three hours. The volcanic eruption was manifestly very considerable, the entire summit of the promontory being enveloped in flames. To produce so large a combustion either the oxygen of Gallia's atmosphere had been brought into contact with the explosive gases contained beneath her soil, or perhaps, still more probable, the volcano, like those in the moon, was fed by an internal supply of oxygen of her own.

It took more than half an hour to settle on a suitable landing-place.

At length, a small semi-circular creek was discovered among the rocks, which appeared advantageous, because, if circumstances should so require, it would form a safe anchorage for both the Dobryna and the Hansa.

The launch securely moored, the passengers landed on the side of the promontory opposite to that on which a torrent of burning lava was descending to the sea. With much satisfaction they experienced, as they approached the mountain, a sensible difference in the temperature, and their spirits could not do otherwise than rise at the prospect of having their hopes confirmed, that a deliverance from the threatened calamity had so opportunely been found. On they went, up the steep acclivity, scrambling over its rugged projections, scaling the irregularities of its gigantic strata, bounding from point to point with the agility of chamois, but never alighting on anything except on the accumulation of the same hexagonal prisms with which they had now become so familiar.

Their exertions were happily rewarded. Behind a huge pyramidal rock they found a hole in the mountain-side, like the mouth of a great tunnel. Climbing up to this orifice, which was more than sixty feet above the level of the sea, they ascertained that it opened into a long dark gallery. They entered and groped their way cautiously along the sides. A continuous rumbling, that increased as they advanced, made them aware that they must be approaching the central funnel of the volcano; their

only fear was lest some insuperable wall of rock should suddenly bar their further progress.

Servadac was some distance ahead.

"Come on!" he cried cheerily, his voice ringing through the darkness, "come on! Our fire is lighted! no stint of fuel! Nature provides that! Let us make haste and warm ourselves!"

Inspired by his confidence, the count and the lieutenant advanced bravely along the unseen and winding path. The temperature was now at least fifteen degrees above zero, and the walls of the gallery were beginning to feel quite warm to the touch, an indication, not to be overlooked, that the substance of which the rock was composed was metallic in its nature, and capable of conducting heat.

"Follow me!" shouted Servadac again; "we shall soon find a regular stove!"

Onwards they made their way, until at last a sharp turn brought them into a sudden flood of light. The tunnel had opened into a vast cavern, and the gloom was exchanged for an illumination that was perfectly dazzling. Although the temperature was high, it was not in any way intolerable.

One glance was sufficient to satisfy the explorers that the grateful light and heat of this huge excavation were to be attributed to a torrent of lava that was rolling downwards to the sea, completely subtending the aperture of the cave. Not inaptly might the scene be compared to the celebrated Grotto of the Winds at the rear of the central fall of Niagara, only with the exception that here, instead of a curtain of rushing water, it was a curtain of roaring flame that hung before the cavern's mouth.

"Heaven be praised!" cried Servadac, with glad emotion; "here is all that we hoped for, and more besides!"

CHAPTER XXI. WINTER QUARTERS

The habitation that had now revealed itself, well lighted and thoroughly warm, was indeed marvelous. Not only would it afford ample accommodation for Hector Servadac and "his subjects," as Ben Zoof delighted to call them, but it would provide shelter for the two horses, and for a considerable number of domestic animals.

This enormous cavern was neither more or less than the common junction of nearly twenty tunnels (similar to that which had been traversed by the explorers), forming ramifications in the solid rock, and the pores, as it were, by which the internal heat exuded from the heart of the mountain. Here, as long as the volcano retained its activity, every living creature on the new asteroid might brave the most rigorous of climates; and as Count Timascheff justly remarked, since it was the only burning mountain they had sighted, it was most probably the sole outlet for Gallia's subterranean fires, and consequently the eruption might continue unchanged for ages to come.

But not a day, not an hour, was to be lost now. The steam-launch returned to Gourbi Island, and preparations were forthwith taken in hand for conveying man and beast, corn and fodder, across to the volcanic headland. Loud and hearty were the acclamations of the little colony,

especially of the Spaniards, and great was the relief of Nina, when Servadac announced to them the discovery of their future domicile; and with requickened energies they labored hard at packing, anxious to reach their genial winter quarters without delay.

For three successive days the Dobryna, laden to her very gunwale, made a transit to and fro. Ben Zoof was left upon the island to superintend the stowage of the freight, whilst Servadac found abundant occupation in overlooking its disposal within the recesses of the mountain. First of all, the large store of corn and fodder, the produce of the recent harvest, was landed and deposited in one of the vaults; then, on the 15th, about fifty head of live cattle--bullocks, cows, sheep, and pigs--were conveyed to their rocky stalls. These were saved for the sake of preserving the several breeds, the bulk of the island cattle being slaughtered, as the extreme severity of the climate insured all meat remaining fresh for almost an indefinite period. The winter which they were expecting would probably be of unprecedented length; it was quite likely that it would exceed the six months' duration by which many arctic explorers have been tried; but the population of Gallia had no anxiety in the matter of provisions--their stock was far more than adequate; while as for drink, as long as they were satisfied with pure water, a frozen sea would afford them an inexhaustible reservoir.

The need for haste in forwarding their preparations became more and more

manifest; the sea threatened to be un-navigable very soon, as ice was already forming which the noonday sun was unable to melt. And if haste were necessary, so also were care, ingenuity, and forethought. It was indispensable that the space at their command should be properly utilized, and yet that the several portions of the store should all be readily accessible.

On further investigation an unexpected number of galleries was discovered, so that, in fact, the interior of the mountain was like a vast bee-hive perforated with innumerable cells; and in compliment to the little Italian it was unanimously voted by the colony that their new home should be called "Nina's Hive."

The first care of Captain Servadac was to ascertain how he could make the best possible use of the heat which nature had provided for them so opportunely and with so lavish a hand. By opening fresh vents in the solid rock (which by the action of the heat was here capable of fissure) the stream of burning lava was diverted into several new channels, where it could be available for daily use; and thus Mochel, the Dobryna's cook, was furnished with an admirable kitchen, provided with a permanent stove, where he was duly installed with all his culinary apparatus.

"What a saving of expense it would be," exclaimed Ben Zoof, "if every household could be furnished with its own private volcano!"

The large cavern at the general junction of the galleries was fitted up as a drawing-room, and arranged with all the best furniture both of the gourbi and of the cabin of the Dobryna. Hither was also brought the schooner's library, containing a good variety of French and Russian books; lamps were suspended over the different tables; and the walls of the apartment were tapestried with the sails and adorned with the flags belonging to the yacht. The curtain of fire extending over the opening of the cavern provided it, as already stated, with light and heat.

The torrent of lava fell into a small rock-bound basin that had no apparent communication with the sea, and was evidently the aperture of a deep abyss, of which the waters, heated by the descent of the eruptive matter, would no doubt retain their liquid condition long after the Gallian Sea had become a sheet of ice.

A small excavation to the left of the common hall was allotted for the special use of Servadac and the count; another on the right was appropriated to the lieutenant and Ben Zoof; whilst a third recess, immediately at the back, made a convenient little chamber for Nina. The Spaniards and the Russian sailors took up their sleeping-quarters in the adjacent galleries, and found the temperature quite comfortable.

Such were the internal arrangements of Nina's Hive, the refuge where

the little colony were full of hope that they would be able to brave the rigors of the stern winter-time that lay before them--a winter-time during which Gallia might possibly be projected even to the orbit of Jupiter, where the temperature would not exceed one twenty-fifth of the normal winter temperature of the earth.

The only discontented spirit was Isaac Hakkabut. Throughout all the preparations which roused even the Spaniards to activity, the Jew, still incredulous and deaf to every representation of the true state of things, insisted upon remaining in the creek at Gourbi Island; nothing could induce him to leave his tartan, where, like a miser, he would keep guard over his precious cargo, ever grumbling and growling, but with his weather-eye open in the hope of catching sight of some passing sail. It must be owned that the whole party were far from sorry to be relieved of his presence; his uncomely figure and repulsive countenance was a perpetual bugbear. He had given out in plain terms that he did not intend to part with any of his property, except for current money, and Servadac, equally resolute, had strictly forbidden any purchases to be made, hoping to wear out the rascal's obstinacy.

Hakkabut persistently refused to credit the real situation; he could not absolutely deny that some portions of the terrestrial globe had undergone a certain degree of modification, but nothing could bring him to believe that he was not, sooner or later, to résumé his old line of

business in the Mediterranean. With his wonted distrust of all with whom he came in contact, he regarded every argument that was urged upon him only as evidence of a plot that had been devised to deprive him of his goods. Repudiating, as he did utterly, the hypothesis that a fragment had become detached from the earth, he scanned the horizon for hours together with an old telescope, the case of which had been patched up till it looked like a rusty stove-pipe, hoping to descry the passing trader with which he might effect some bartering upon advantageous terms.

At first he professed to regard the proposed removal into winter-quarters as an attempt to impose upon his credulity; but the frequent voyages made by the Dobryna to the south, and the repeated consignments of corn and cattle, soon served to make him aware that Captain Servadac and his companions were really contemplating a departure from Gourbi Island.

The movement set him thinking. What, he began to ask himself--what if all that was told him was true? What if this sea was no longer the Mediterranean? What if he should never again behold his German fatherland? What if his marts for business were gone for ever? A vague idea of ruin began to take possession of his mind: he must yield to necessity; he must do the best he could. As the result of his cogitations, he occasionally left his tartan and made a visit to the

shore. At length he endeavored to mingle with the busy group, who were hurrying on their preparations; but his advances were only met by jeers and scorn, and, ridiculed by all the rest, he was fain to turn his attention to Ben Zoof, to whom he offered a few pinches of tobacco.

"No, old Zebulon," said Ben Zoof, steadily refusing the gift, "it is against orders to take anything from you. Keep your cargo to yourself; eat and drink it all if you can; we are not to touch it."

Finding the subordinates incorruptible, Isaac determined to go to the fountain-head. He addressed himself to Servadac, and begged him to tell him the whole truth, piteously adding that surely it was unworthy of a French officer to deceive a poor old man like himself.

"Tell you the truth, man!" cried Servadac. "Confound it, I have told you the truth twenty times. Once for all, I tell you now, you have left yourself barely time enough to make your escape to yonder mountain."

"God and Mahomet have mercy on me!" muttered the Jew, whose creed frequently assumed a very ambiguous character.

"I will tell you what," continued the captain--"you shall have a few men to work the Hansa across, if you like."

"But I want to go to Algiers," whimpered Hakkabut.

"How often am I to tell you that Algiers is no longer in existence? Only say yes or no--are you coming with us into winter-quarters?"

"God of Israel! what is to become of all my property?"

"But, mind you," continued the captain, not heeding the interruption, "if you do not choose voluntarily to come with us, I shall have the Hansa, by my orders, removed to a place of safety. I am not going to let your cursed obstinacy incur the risk of losing your cargo altogether."

"Merciful Heaven! I shall be ruined!" moaned Isaac, in despair.

"You are going the right way to ruin yourself, and it would serve you right to leave you to your own devices. But be off! I have no more to say."

And, turning contemptuously on his heel, Servadac left the old man vociferating bitterly, and with uplifted hands protesting vehemently against the rapacity of the Gentiles.

By the 20th all preliminary arrangements were complete, and everything

ready for a final departure from the island. The thermometer stood on an average at 8 degrees below zero, and the water in the cistern was completely frozen. It was determined, therefore, for the colony to embark on the following day, and take up their residence in Nina's Hive.

A final consultation was held about the Hansa. Lieutenant Procope pronounced his decided conviction that it would be impossible for the tartan to resist the pressure of the ice in the harbor of the Shelif, and that there would be far more safety in the proximity of the volcano. It was agreed on all hands that the vessel must be shifted; and accordingly orders were given, four Russian sailors were sent on board, and only a few minutes elapsed after the Dobryna had weighed anchor, before the great lateen sail of the tartan was unfurled, and the "shop-ship," as Ben Zoof delighted to call it, was also on her way to the southward.

Long and loud were the lamentations of the Jew. He kept exclaiming that he had given no orders, that he was being moved against his will, that he had asked for no assistance, and needed none; but it required no very keen discrimination to observe that all along there was a lurking gleam of satisfaction in his little gray eyes, and when, a few hours later, he found himself securely anchored, and his property in a place of safety, he quite chuckled with glee.

"God of Israel!" he said in an undertone, "they have made no charge; the idiots have piloted me here for nothing."

For nothing! His whole nature exulted in the consciousness that he was enjoying a service that had been rendered gratuitously.

Destitute of human inhabitants, Gourbi Island was now left to the tenancy of such birds and beasts as had escaped the recent promiscuous slaughter. Birds, indeed, that had migrated in search of warmer shores, had returned, proving that this fragment of the French colony was the only shred of land that could yield them any sustenance; but their life must necessarily be short. It was utterly impossible that they could survive the cold that would soon ensue.

The colony took possession of their new abode with but few formalities. Everyone, however, approved of all the internal arrangements of Nina's Hive, and were profuse in their expressions of satisfaction at finding themselves located in such comfortable quarters. The only malcontent was Hakkabut; he had no share in the general enthusiasm, refused even to enter or inspect any of the galleries, and insisted on remaining on board his tartan.

"He is afraid," said Ben Zoof, "that he will have to pay for his lodgings. But wait a bit; we shall see how he stands the cold out there;

the frost, no doubt, will drive the old fox out of his hole."

Towards evening the pots were set boiling, and a bountiful supper, to which all were invited, was spread in the central hall. The stores of the Dobryna contained some excellent wine, some of which was broached to do honor to the occasion. The health of the governor general was drunk, as well as the toast "Success to his council," to which Ben Zoof was called upon to return thanks. The entertainment passed off merrily. The Spaniards were in the best of spirits; one of them played the guitar, another the castanets, and the rest joined in a ringing chorus. Ben Zoof contributed the famous Zouave refrain, well known throughout the French army, but rarely performed in finer style than by this virtuoso:

"Misti goth dar dar tire lyre!
Flic! floc! flac! lirette, lira!
Far la rira,
Tour tala rire,
Tour la Ribaud,
Ricandeau,
Sans repos, repit, repit, repos, ris pot, ripette!
Si vous attrapez mon refrain,
Fameux vous etes."

The concert was succeeded by a ball, unquestionably the first that had ever taken place in Gallia. The Russian sailors exhibited some of their national dances, which gained considerable applause, even although they followed upon the marvelous fandangos of the Spaniards. Ben Zoof, in his turn, danced a pas seul (often performed in the Elysee Montmartre) with an elegance and vigor that earned many compliments from Negrete.

It was nine o'clock before the festivities came to an end, and by that time the company, heated by the high temperature of the hall, and by their own exertions, felt the want of a little fresh air. Accordingly the greater portion of the party, escorted by Ben Zoof, made their way into one of the adjacent galleries that led to the shore. Servadac, with the count and lieutenant, did not follow immediately; but shortly afterwards they proceeded to join them, when on their way they were startled by loud cries from those in advance.

Their first impression was that they were cries of distress, and they were greatly relieved to find that they were shouts of delight, which the dryness and purity of the atmosphere caused to re-echo like a volley of musketry.

Reaching the mouth of the gallery, they found the entire group pointing with eager interest to the sky.

"Well, Ben Zoof," asked the captain, "what's the matter now?"

"Oh, your Excellency," ejaculated the orderly, "look there! look there! The moon! the moon's come back!"

And, sure enough, what was apparently the moon was rising above the mists of evening.

CHAPTER XXII. A FROZEN OCEAN

The moon! She had disappeared for weeks; was she now returning? Had she been faithless to the earth? and had she now approached to be a satellite of the new-born world?

"Impossible!" said Lieutenant Procope; "the earth is millions and millions of leagues away, and it is not probable that the moon has ceased to revolve about her."

"Why not?" remonstrated Servadac. "It would not be more strange than the other phenomena which we have lately witnessed. Why should not the moon have fallen within the limits of Gallia's attraction, and become her satellite?"

"Upon that supposition," put in the count, "I should think that it would be altogether unlikely that three months would elapse without our seeing her."

"Quite incredible!" continued Procope. "And there is another thing which totally disproves the captain's hypothesis; the magnitude of Gallia is far too insignificant for her power of attraction to carry off the moon."

"But," persisted Servadac, "why should not the same convulsion that tore us away from the earth have torn away the moon as well? After wandering about as she would for a while in the solar regions, I do not see why she should not have attached herself to us."

The lieutenant repeated his conviction that it was not likely.

"But why not?" again asked Servadac impetuously.

"Because, I tell you, the mass of Gallia is so inferior to that of the moon, that Gallia would become the moon's satellite; the moon could not possibly become hers."

"Assuming, however," continued Servadac, "such to be the case--"

"I am afraid," said the lieutenant, interrupting him, "that I cannot assume anything of the sort even for a moment."

Servadac smiled good-humoredly.

"I confess you seem to have the best of the argument, and if Gallia had become a satellite of the moon, it would not have taken three months to catch sight of her. I suppose you are right."

While this discussion had been going on, the satellite, or whatever it might be, had been rising steadily above the horizon, and had reached a position favorable for observation. Telescopes were brought, and it was very soon ascertained, beyond a question, that the new luminary was not the well-known Phoebe of terrestrial nights; it had no feature in common with the moon. Although it was apparently much nearer to Gallia than the moon to the earth, its superficies was hardly one-tenth as large, and so feebly did it reflect the light of the remote sun, that it scarcely emitted radiance enough to extinguish the dim luster of stars of the eighth magnitude. Like the sun, it had risen in the west, and was now at its full. To mistake its identity with the moon was absolutely impossible; not even Servadac could discover a trace of the seas, chasms, craters, and mountains which have been so minutely delineated in lunar charts, and it could not be denied that any transient hope that had been excited as to their once again being about to enjoy the peaceful smiles of "the queen of night" must all be resigned.

Count Timascheff finally suggested, though somewhat doubtfully, the question of the probability that Gallia, in her course across the zone of the minor planets, had carried off one of them; but whether it was one of the 169 asteroids already included in the astronomical catalogues, or one previously unknown, he did not presume to determine. The idea to a certain extent was plausible, inasmuch as it has been

ascertained that several of the telescopic planets are of such small dimensions that a good walker might make a circuit of them in four and twenty hours; consequently Gallia, being of superior volume, might be supposed capable of exercising a power of attraction upon any of these miniature microcosms.

The first night in Nina's Hive passed without special incident; and next morning a regular scheme of life was definitely laid down. "My lord governor," as Ben Zoof until he was peremptorily forbidden delighted to call Servadac, had a wholesome dread of idleness and its consequences, and insisted upon each member of the party undertaking some special duty to fulfill. There was plenty to do. The domestic animals required a great deal of attention; a supply of food had to be secured and preserved; fishing had to be carried on while the condition of the sea would allow it; and in several places the galleries had to be further excavated to render them more available for use. Occupation, then, need never be wanting, and the daily round of labor could go on in orderly routine.

A perfect concord ruled the little colony. The Russians and Spaniards amalgamated well, and both did their best to pick up various scraps of French, which was considered the official language of the place. Servadac himself undertook the tuition of Pablo and Nina, Ben Zoof being their companion in play-hours, when he entertained them with enchanting

stories in the best Parisian French, about "a lovely city at the foot of a mountain," where he always promised one day to take them.

The end of March came, but the cold was not intense to such a degree as to confine any of the party to the interior of their resort; several excursions were made along the shore, and for a radius of three or four miles the adjacent district was carefully explored. Investigation, however, always ended in the same result; turn their course in whatever direction they would, they found that the country retained everywhere its desert character, rocky, barren, and without a trace of vegetation. Here and there a slight layer of snow, or a thin coating of ice arising from atmospheric condensation indicated the existence of superficial moisture, but it would require a period indefinitely long, exceeding human reckoning, before that moisture could collect into a stream and roll downwards over the stony strata to the sea. It seemed at present out of their power to determine whether the land upon which they were so happily settled was an island or a continent, and till the cold was abated they feared to undertake any lengthened expedition to ascertain the actual extent of the strange concrete of metallic crystallization.

By ascending one day to the summit of the volcano, Captain Servadac and the count succeeded in getting a general idea of the aspect of the country. The mountain itself was an enormous block rising symmetrically to a height of nearly 3,000 feet above the level of the sea, in the

form of a truncated cone, of which the topmost section was crowned by a wreath of smoke issuing continuously from the mouth of a narrow crater.

Under the old condition of terrestrial things, the ascent of this steep acclivity would have been attended with much fatigue, but as the effect of the altered condition of the law of gravity, the travelers performed perpetual prodigies in the way of agility, and in little over an hour reached the edge of the crater, without more sense of exertion than if they had traversed a couple of miles on level ground. Gallia had its drawbacks, but it had some compensating advantages.

Telescopes in hand, the explorers from the summit scanned the surrounding view. Their anticipations had already realized what they saw. Just as they expected, on the north, east, and west lay the Gallian Sea, smooth and motionless as a sheet of glass, the cold having, as it were, congealed the atmosphere so that there was not a breath of wind. Towards the south there seemed no limit to the land, and the volcano formed the apex of a triangle, of which the base was beyond the reach of vision. Viewed even from this height, whence distance would do much to soften the general asperity, the surface nevertheless seemed to be bristling with its myriads of hexagonal lamellae, and to present difficulties which, to an ordinary pedestrian, would be insurmountable.

"Oh for some wings, or else a balloon!" cried Servadac, as he gazed

around him; and then, looking down to the rock upon which they were standing, he added, "We seem to have been transplanted to a soil strange enough in its chemical character to bewilder the savants at a museum."

"And do you observe, captain," asked the count, "how the convexity of our little world curtails our view? See, how circumscribed is the horizon!"

Servadac replied that he had noticed the same circumstance from the top of the cliffs of Gourbi Island.

"Yes," said the count; "it becomes more and more obvious that ours is a very tiny world, and that Gourbi Island is the sole productive spot upon its surface. We have had a short summer, and who knows whether we are not entering upon a winter that may last for years, perhaps for centuries?"

"But we must not mind, count," said Servadac, smiling. "We have agreed, you know, that, come what may, we are to be philosophers."

"Ay, true, my friend," rejoined the count; "we must be philosophers and something more; we must be grateful to the good Protector who has hitherto befriended us, and we must trust His mercy to the end."

For a few moments they both stood in silence, and contemplated land and sea; then, having given a last glance over the dreary panorama, they prepared to wend their way down the mountain. Before, however, they commenced their descent, they resolved to make a closer examination of the crater. They were particularly struck by what seemed to them almost the mysterious calmness with which the eruption was effected. There was none of the wild disorder and deafening tumult that usually accompany the discharge of volcanic matter, but the heated lava, rising with a uniform gentleness, quietly overran the limits of the crater, like the flow of water from the bosom of a peaceful lake. Instead of a boiler exposed to the action of an angry fire, the crater rather resembled a brimming basin, of which the contents were noiselessly escaping. Nor were there any igneous stones or red-hot cinders mingled with the smoke that crowned the summit; a circumstance that quite accorded with the absence of the pumice-stones, obsidians, and other minerals of volcanic origin with which the base of a burning mountain is generally strewn.

Captain Servadac was of opinion that this peculiarity augured favorably for the continuance of the eruption. Extreme violence in physical, as well as in moral nature, is never of long duration. The most terrible storms, like the most violent fits of passion, are not lasting; but here the calm flow of the liquid fire appeared to be supplied from a source that was inexhaustible, in the same way as the waters of Niagara, gliding on steadily to their final plunge, would defy all effort to

arrest their course.

Before the evening of this day closed in, a most important change was effected in the condition of the Gallian Sea by the intervention of human agency. Notwithstanding the increasing cold, the sea, unruffled as it was by a breath of wind, still retained its liquid state. It is an established fact that water, under this condition of absolute stillness, will remain uncongealed at a temperature several degrees below zero, whilst experiment, at the same time, shows that a very slight shock will often be sufficient to convert it into solid ice. It had occurred to Servadac that if some communication could be opened with Gourbi Island, there would be a fine scope for hunting expeditions. Having this ultimate object in view, he assembled his little colony upon a projecting rock at the extremity of the promontory, and having called Nina and Pablo out to him in front, he said: "Now, Nina, do you think you could throw something into the sea?"

"I think I could," replied the child, "but I am sure that Pablo would throw it a great deal further than I can."

"Never mind, you shall try first."

Putting a fragment of ice into Nina's hand, he addressed himself to Pablo:

"Look out, Pablo; you shall see what a nice little fairy Nina is! Throw, Nina, throw, as hard as you can."

Nina balanced the piece of ice two or three times in her hand, and threw it forward with all her strength.

A sudden thrill seemed to vibrate across the motionless waters to the distant horizon, and the Gallian Sea had become a solid sheet of ice!

CHAPTER XXIII. A CARRIER-PIGEON

When, three hours after sunset, on the 23d of March, the Gallian moon rose upon the western horizon, it was observed that she had entered upon her last quarter. She had taken only four days to pass from syzygy to quadrature, and it was consequently evident that she would be visible for little more than a week at a time, and that her lunation would be accomplished within sixteen days. The lunar months, like the solar days, had been diminished by one-half. Three days later the moon was in conjunction with the sun, and was consequently lost to view; Ben Zoof, as the first observer of the satellite, was extremely interested in its movements, and wondered whether it would ever reappear.

On the 26th, under an atmosphere perfectly clear and dry, the thermometer fell to 12 degrees F. below zero. Of the present distance of Gallia from the sun, and the number of leagues she had traversed since the receipt of the last mysterious document, there were no means of judging; the extent of diminution in the apparent disc of the sun did not afford sufficient basis even for an approximate calculation; and Captain Servadac was perpetually regretting that they could receive no further tidings from the anonymous correspondent, whom he persisted in regarding as a fellow-countryman.

The solidity of the ice was perfect; the utter stillness of the air at the time when the final congelation of the waters had taken place had resulted in the formation of a surface that for smoothness would rival a skating-rink; without a crack or flaw it extended far beyond the range of vision.

The contrast to the ordinary aspect of polar seas was very remarkable. There, the ice-fields are an agglomeration of hummocks and icebergs, massed in wild confusion, often towering higher than the masts of the largest whalers, and from the instability of their foundations liable to an instantaneous loss of equilibrium; a breath of wind, a slight modification of the temperature, not unfrequently serving to bring about a series of changes outrivaling the most elaborate transformation scenes of a pantomime. Here, on the contrary, the vast white plain was level as the desert of Sahara or the Russian steppes; the waters of the Gallian Sea were imprisoned beneath the solid sheet, which became continually stouter in the increasing cold.

Accustomed to the uneven crystallizations of their own frozen seas, the Russians could not be otherwise than delighted with the polished surface that afforded them such excellent opportunity for enjoying their favorite pastime of skating. A supply of skates, found hidden away amongst the Dobryna's stores, was speedily brought into use. The Russians undertook the instruction of the Spaniards, and at the end of

a few days, during which the temperature was only endurable through the absence of wind, there was not a Gallian who could not skate tolerably well, while many of them could describe figures involving the most complicated curves. Nina and Pablo earned loud applause by their rapid proficiency; Captain Servadac, an adept in athletics, almost outvied his instructor, the count; and Ben Zoof, who had upon some rare occasions skated upon the Lake of Montmartre (in his eyes, of course, a sea), performed prodigies in the art.

This exercise was not only healthful in itself, but it was acknowledged that, in case of necessity, it might become a very useful means of locomotion. As Captain Servadac remarked, it was almost a substitute for railways, and as if to illustrate this proposition, Lieutenant Procope, perhaps the greatest expert in the party, accomplished the twenty miles to Gourbi Island and back in considerably less than four hours.

The temperature, meanwhile, continued to decrease, and the average reading of the thermometer was about 16 degrees F. below zero; the light also diminished in proportion, and all objects appeared to be enveloped in a half-defined shadow, as though the sun were undergoing a perpetual eclipse. It was not surprising that the effect of this continuously overhanging gloom should be to induce a frequent depression of spirits amongst the majority of the little population, exiles as they were from their mother earth, and not unlikely, as it seemed, to be swept far away

into the regions of another planetary sphere. Probably Count Timascheff, Captain Servadac, and Lieutenant Procope were the only members of the community who could bring any scientific judgment to bear upon the uncertainty that was before them, but a general sense of the strangeness of their situation could not fail at times to weigh heavily upon the minds of all. Under these circumstances it was very necessary to counteract the tendency to despond by continual diversion; and the recreation of skating thus opportunely provided, seemed just the thing to arouse the flagging spirits, and to restore a wholesome excitement.

With dogged obstinacy, Isaac Hakkabut refused to take any share either in the labors or the amusements of the colony. In spite of the cold, he had not been seen since the day of his arrival from Gourbi Island. Captain Servadac had strictly forbidden any communication with him; and the smoke that rose from the cabin chimney of the Hansa was the sole indication of the proprietor being still on board. There was nothing to prevent him, if he chose, from partaking gratuitously of the volcanic light and heat which were being enjoyed by all besides; but rather than abandon his close and personal oversight of his precious cargo, he preferred to sacrifice his own slender stock of fuel.

Both the schooner and the tartan had been carefully moored in the way that seemed to promise best for withstanding the rigor of the winter. After seeing the vessels made secure in the frozen creek. Lieutenant

Procope, following the example of many Arctic explorers, had the precaution to have the ice beveled away from the keels, so that there should be no risk of the ships' sides being crushed by the increasing pressure; he hoped that they would follow any rise in the level of the ice-field, and when the thaw should come, that they would easily regain their proper water-line.

On his last visit to Gourbi Island, the lieutenant had ascertained that north, east, and west, far as the eye could reach, the Gallian Sea had become one uniform sheet of ice. One spot alone refused to freeze; this was the pool immediately below the central cavern, the receptacle for the stream of burning lava. It was entirely enclosed by rocks, and if ever a few icicles were formed there by the action of the cold, they were very soon melted by the fiery shower. Hissing and spluttering as the hot lava came in contact with it, the water was in a continual state of ebullition, and the fish that abounded in its depths defied the angler's craft; they were, as Ben Zoof remarked, "too much boiled to bite."

At the beginning of April the weather changed. The sky became overcast, but there was no rise in the temperature. Unlike the polar winters of the earth, which ordinarily are affected by atmospheric influence, and liable to slight intermissions of their severity at various shiftings of the wind, Gallia's winter was caused by her immense distance from the

source of all light and heat, and the cold was consequently destined to go on steadily increasing until it reached the limit ascertained by Fourier to be the normal temperature of the realms of space.

With the over-clouding of the heavens there arose a violent tempest; but although the wind raged with an almost inconceivable fury, it was unaccompanied by either snow or rain. Its effect upon the burning curtain that covered the aperture of the central hall was very remarkable. So far from there being any likelihood of the fire being extinguished by the vehemence of the current of air, the hurricane seemed rather to act as a ventilator, which fanned the flame into greater activity, and the utmost care was necessary to avoid being burnt by the fragments of lava that were drifted into the interior of the grotto. More than once the curtain itself was rifted entirely asunder, but only to close up again immediately after allowing a momentary draught of cold air to penetrate the hall in a way that was refreshing and rather advantageous than otherwise.

On the 4th of April, after an absence of about four days, the new satellite, to Ben Zoof's great satisfaction, made its reappearance in a crescent form, a circumstance that seemed to justify the anticipation that henceforward it would continue to make a periodic revolution every fortnight.

The crust of ice and snow was far too stout for the beaks of the strongest birds to penetrate, and accordingly large swarms had left the island, and, following the human population, had taken refuge on the volcanic promontory; not that there the barren shore had anything in the way of nourishment to offer them, but their instinct impelled them to haunt now the very habitations which formerly they would have shunned. Scraps of food were thrown to them from the galleries; these were speedily devoured, but were altogether inadequate in quantity to meet the demand. At length, emboldened by hunger, several hundred birds ventured through the tunnel, and took up their quarters actually in Nina's Hive. Congregating in the large hall, the half-famished creatures did not hesitate to snatch bread, meat, or food of any description from the hands of the residents as they sat at table, and soon became such an intolerable nuisance that it formed one of the daily diversions to hunt them down; but although they were vigorously attacked by stones and sticks, and even occasionally by shot, it was with some difficulty that their number could be sensibly reduced.

By a systematic course of warfare the bulk of the birds were all expelled, with the exception of about a hundred, which began to build in the crevices of the rocks. These were left in quiet possession of their quarters, as not only was it deemed advisable to perpetuate the various breeds, but it was found that these birds acted as a kind of police, never failing either to chase away or to kill any others of their

species who infringed upon what they appeared to regard as their own special privilege in intruding within the limits of their domain.

On the 15th loud cries were suddenly heard issuing from the mouth of the principal gallery.

"Help, help! I shall be killed!"

Pablo in a moment recognized the voice as Nina's. Outrunning even Ben Zoof he hurried to the assistance of his little playmate, and discovered that she was being attacked by half a dozen great sea-gulls, and only after receiving some severe blows from their beaks could he succeed by means of a stout cudgel in driving them away.

"Tell me, Nina, what is this?" he asked as soon as the tumult had subsided.

The child pointed to a bird which she was caressing tenderly in her bosom.

"A pigeon!" exclaimed Ben Zoof, who had reached the scene of commotion, adding:

"A carrier-pigeon! And by all the saints of Montmartre, there is a

little bag attached to its neck!"

He took the bird, and rushing into the hall placed it in Servadac's hands.

"Another message, no doubt," cried the captain, "from our unknown friend. Let us hope that this time he has given us his name and address."

All crowded round, eager to hear the news. In the struggle with the gulls the bag had been partially torn open, but still contained the following dispatch:

"Gallia!

Chemin parcouru du 1er Mars au 1er Avril: 39,000,000 l.!

Distance du soleil: 110,000,000 l.!

Capte Nerina en passant.

Vivres vont manquer et..."

The rest of the document had been so damaged by the beaks of the gulls

that it was illegible. Servadac was wild with vexation. He felt more and more convinced that the writer was a Frenchman, and that the last line indicated that he was in distress from scarcity of food. The very thought of a fellow-countryman in peril of starvation drove him well-nigh to distraction, and it was in vain that search was made everywhere near the scene of conflict in hopes of finding the missing scrap that might bear a signature or address.

Suddenly little Nina, who had again taken possession of the pigeon, and was hugging it to her breast, said:

"Look here, Ben Zoof!"

And as she spoke she pointed to the left wing of the bird. The wing bore the faint impress of a postage-stamp, and the one word: "FORMENTERA."

CHAPTER XXIV. A SLEDGE-RIDE

Formentera was at once recognized by Servadac and the count as the name of one of the smallest of the Balearic Islands. It was more than probable that the unknown writer had thence sent out the mysterious documents, and from the message just come to hand by the carrier-pigeon, it appeared all but certain that at the beginning of April, a fortnight back, he had still been there. In one important particular the present communication differed from those that had preceded it: it was written entirely in French, and exhibited none of the ecstatic exclamations in other languages that had been remarkable in the two former papers. The concluding line, with its intimation of failing provisions, amounted almost to an appeal for help. Captain Servadac briefly drew attention to these points, and concluded by saying, "My friends, we must, without delay, hasten to the assistance of this unfortunate man."

"For my part," said the count, "I am quite ready to accompany you; it is not unlikely that he is not alone in his distress."

Lieutenant Procope expressed much surprise. "We must have passed close to Formentera," he said, "when we explored the site of the Balearic Isles; this fragment must be very small; it must be smaller than the remaining splinter of Gibraltar or Ceuta; otherwise, surely it would

never have escaped our observation."

"However small it may be," replied Servadac, "we must find it. How far off do you suppose it is?"

"It must be a hundred and twenty leagues away," said the lieutenant, thoughtfully; "and I do not quite understand how you would propose to get there."

"Why, on skates of course; no difficulty in that, I should imagine," answered Servadac, and he appealed to the count for confirmation of his opinion.

The count assented, but Procope looked doubtful.

"Your enterprise is generous," he said, "and I should be most unwilling to throw any unnecessary obstacle in the way of its execution; but, pardon me, if I submit to you a few considerations which to my mind are very important. First of all, the thermometer is already down to 22 degrees below zero, and the keen wind from the south is making the temperature absolutely unendurable; in the second place, supposing you travel at the rate of twenty leagues a day, you would be exposed for at least six consecutive days; and thirdly, your expedition will be of small avail unless you convey provisions not only for yourselves, but

for those whom you hope to relieve."

"We can carry our own provisions on our backs in knapsacks," interposed Servadac, quickly, unwilling to recognize any difficulty in the way.

"Granted that you can," answered the lieutenant, quietly; "but where, on this level ice-field, will you find shelter in your periods of rest?
You must perish with cold; you will not have the chance of digging out ice-huts like the Esquimaux."

"As to rest," said Servadac, "we shall take none; we shall keep on our way continuously; by traveling day and night without intermission, we shall not be more than three days in reaching Formentera."

"Believe me," persisted the lieutenant, calmly, "your enthusiasm is carrying you too far; the feat you propose is impossible; but even conceding the possibility of your success in reaching your destination, what service do you imagine that you, half-starved and half-frozen yourself, could render to those who are already perishing by want and exposure? you would only bring them away to die."

The obvious and dispassionate reasoning of the lieutenant could not fail to impress the minds of those who listened to him; the impracticability of the journey became more and more apparent; unprotected on that drear

expanse, any traveler must assuredly succumb to the snow-drifts that were continually being whirled across it. But Hector Servadac, animated by the generous desire of rescuing a suffering fellow-creature, could scarcely be brought within the bounds of common sense. Against his better judgment he was still bent upon the expedition, and Ben Zoof declared himself ready to accompany his master in the event of Count Timascheff hesitating to encounter the peril which the undertaking involved. But the count entirely repudiated all idea of shrinking from what, quite as much as the captain, he regarded as a sacred duty, and turning to Lieutenant Procope, told him that unless some better plan could be devised, he was prepared to start off at once and make the attempt to skate across to Formentera. The lieutenant, who was lost in thought, made no immediate reply.

"I wish we had a sledge," said Ben Zoof.

"I dare say that a sledge of some sort could be contrived," said the count; "but then we should have no dogs or reindeers to draw it."

"Why not rough-shoe the two horses?"

"They would never be able to endure the cold," objected the count.

"Never mind," said Servadac, "let us get our sledge and put them to the

test. Something must be done!"

"I think," said Lieutenant Procope, breaking his thoughtful silence, "that I can tell you of a sledge already provided for your hand, and I can suggest a motive power surer and swifter than horses."

"What do you mean?" was the eager inquiry.

"I mean the Dobryna's yawl," answered the lieutenant; "and I have no doubt that the wind would carry her rapidly along the ice."

The idea seemed admirable. Lieutenant Procope was well aware to what marvelous perfection the Americans had brought their sail-sledges, and had heard how in the vast prairies of the United States they had been known to outvie the speed of an express train, occasionally attaining a rate of more than a hundred miles an hour. The wind was still blowing hard from the south, and assuming that the yawl could be propelled with a velocity of about fifteen or at least twelve leagues an hour, he reckoned that it was quite possible to reach Formentera within twelve hours, that is to say, in a single day between the intervals of sunrise and sunrise.

The yawl was about twelve feet long, and capable of holding five or six people. The addition of a couple of iron runners would be all that was

requisite to convert it into an excellent sledge, which, if a sail were hoisted, might be deemed certain to make a rapid progress over the smooth surface of the ice. For the protection of the passengers it was proposed to erect a kind of wooden roof lined with strong cloth; beneath this could be packed a supply of provisions, some warm furs, some cordials, and a portable stove to be heated by spirits of wine.

For the outward journey the wind was as favorable as could be desired; but it was to be apprehended that, unless the direction of the wind should change, the return would be a matter of some difficulty; a system of tacking might be carried out to a certain degree, but it was not likely that the yawl would answer her helm in any way corresponding to what would occur in the open sea. Captain Servadac, however, would not listen to any representation of probable difficulties; the future, he said, must provide for itself.

The engineer and several of the sailors set vigorously to work, and before the close of the day the yawl was furnished with a pair of stout iron runners, curved upwards in front, and fitted with a metal scull designed to assist in maintaining the directness of her course; the roof was put on, and beneath it were stored the provisions, the wraps, and the cooking utensils.

A strong desire was expressed by Lieutenant Procope that he should be

allowed to accompany Captain Servadac instead of Count Timascheff. It was unadvisable for all three of them to go, as, in case of there being several persons to be rescued, the space at their command would be quite inadequate. The lieutenant urged that he was the most experienced seaman, and as such was best qualified to take command of the sledge and the management of the sails; and as it was not to be expected that Servadac would resign his intention of going in person to relieve his fellow-countryman, Procope submitted his own wishes to the count. The count was himself very anxious to have his share in the philanthropic enterprise, and demurred considerably to the proposal; he yielded, however, after a time, to Servadac's representations that in the event of the expedition proving disastrous, the little colony would need his services alike as governor and protector, and overcoming his reluctance to be left out of the perilous adventure, was prevailed upon to remain behind for the general good of the community at Nina's Hive.

At sunrise on the following morning, the 16th of April, Captain Servadac and the lieutenant took their places in the yawl. The thermometer was more than 20 degrees below zero, and it was with deep emotion that their companions beheld them thus embarking upon the vast white plain. Ben Zoof's heart was too full for words; Count Timascheff could not forbear pressing his two brave friends to his bosom; the Spaniards and the Russian sailors crowded round for a farewell shake of the hand, and little Nina, her great eyes flooded with tears, held up her face for a

parting kiss. The sad scene was not permitted to be long. The sail was quickly hoisted, and the sledge, just as if it had expanded a huge white wing, was in a little while carried far away beyond the horizon.

Light and unimpeded, the yawl scudded on with incredible speed. Two sails, a brigantine and a jib, were arranged to catch the wind to the greatest advantage, and the travelers estimated that their progress would be little under the rate of twelve leagues an hour. The motion of their novel vehicle was singularly gentle, the oscillation being less than that of an ordinary railway-carriage, while the diminished force of gravity contributed to the swiftness. Except that the clouds of ice-dust raised by the metal runners were an evidence that they had not actually left the level surface of the ice, the captain and lieutenant might again and again have imagined that they were being conveyed through the air in a balloon.

Lieutenant Procope, with his head all muffled up for fear of frost-bite, took an occasional peep through an aperture that had been intentionally left in the roof, and by the help of a compass, maintained a proper and straight course for Formentera. Nothing could be more dejected than the aspect of that frozen sea; not a single living creature relieved the solitude; both the travelers, Procope from a scientific point of view, Servadac from an aesthetic, were alike impressed by the solemnity of the scene, and where the lengthened shadow of the sail cast upon the ice by

the oblique rays of the setting sun had disappeared, and day had given place to night, the two men, drawn together as by an involuntary impulse, mutually held each other's hands in silence.

There had been a new moon on the previous evening; but, in the absence of moonlight, the constellations shone with remarkable brilliancy. The new pole-star close upon the horizon was resplendent, and even had Lieutenant Procope been destitute of a compass, he would have had no difficulty in holding his course by the guidance of that alone. However great was the distance that separated Gallia from the sun, it was after all manifestly insignificant in comparison with the remoteness of the nearest of the fixed stars.

Observing that Servadac was completely absorbed in his own thoughts, Lieutenant Procope had leisure to contemplate some of the present perplexing problems, and to ponder over the true astronomical position. The last of the three mysterious documents had represented that Gallia, in conformity with Kepler's second law, had traveled along her orbit during the month of March twenty millions of leagues less than she had done in the previous month; yet, in the same time, her distance from the sun had nevertheless been increased by thirty-two millions of leagues. She was now, therefore, in the center of the zone of telescopic planets that revolve between the orbits of Mars and Jupiter, and had captured for herself a satellite which, according to the document, was Nerina,

one of the asteroids most recently identified. If thus, then, it was within the power of the unknown writer to estimate with such apparent certainty Gallia's exact position, was it not likely that his mathematical calculations would enable him to arrive at some definite conclusion as to the date at which she would begin again to approach the sun? Nay, was it not to be expected that he had already estimated, with sufficient approximation to truth, what was to be the true length of the Gallian year?

So intently had they each separately been following their own train of thought, that daylight reappeared almost before the travelers were aware of it. On consulting their instruments, they found that they must have traveled close upon a hundred leagues since they started, and they resolved to slacken their speed. The sails were accordingly taken in a little, and in spite of the intensity of the cold, the explorers ventured out of their shelter, in order that they might reconnoiter the plain, which was apparently as boundless as ever. It was completely desert; not so much as a single point of rock relieved the bare uniformity of its surface.

"Are we not considerably to the west of Formentera?" asked Servadac, after examining the chart.

"Most likely," replied Procope. "I have taken the same course as I

should have done at sea, and I have kept some distance to windward of the island; we can bear straight down upon it whenever we like."

"Bear down then, now; and as quickly as you can."

The yawl was at once put with her head to the northeast and Captain Servadac, in defiance of the icy blast, remained standing at the bow, his gaze fixed on the horizon.

All at once his eye brightened.

"Look! look!" he exclaimed, pointing to a faint outline that broke the monotony of the circle that divided the plain from the sky.

In an instant the lieutenant had seized his telescope.

"I see what you mean," said he; "it is a pylone that has been used for some geodesic survey."

The next moment the sail was filled, and the yawl was bearing down upon the object with inconceivable swiftness, both Captain Servadac and the lieutenant too excited to utter a word. Mile after mile the distance rapidly grew less, and as they drew nearer the pylone they could see that it was erected on a low mass of rocks that was the sole

interruption to the dull level of the field of ice. No wreath of smoke rose above the little island; it was manifestly impossible, they conceived, that any human being could there have survived the cold; the sad presentiment forced itself upon their minds that it was a mere cairn to which they had been hurrying.

Ten minutes later, and they were so near the rock that the lieutenant took in his sail, convinced that the impetus already attained would be sufficient to carry him to the land. Servadac's heart bounded as he caught sight of a fragment of blue canvas fluttering in the wind from the top of the pylone: it was all that now remained of the French national standard. At the foot of the pylone stood a miserable shed, its shutters tightly closed. No other habitation was to be seen; the entire island was less than a quarter of a mile in circumference; and the conclusion was irresistible that it was the sole surviving remnant of Formentera, once a member of the Balearic Archipelago.

To leap on shore, to clamber over the slippery stones, and to reach the cabin was but the work of a few moments. The worm-eaten door was bolted on the inside. Servadac began to knock with all his might. No answer. Neither shouting nor knocking could draw forth a reply.

"Let us force it open, Procope!" he said.

The two men put their shoulders to the door, which soon yielded to their vigorous efforts, and they found themselves inside the shed, and in almost total darkness. By opening a shutter they admitted what daylight they could. At first sight the wretched place seemed to be deserted; the little grate contained the ashes of a fire long since extinguished; all looked black and desolate. Another instant's investigation, however, revealed a bed in the extreme corner, and extended on the bed a human form.

"Dead!" sighed Servadac; "dead of cold and hunger!"

Lieutenant Procope bent down and anxiously contemplated the body.

"No; he is alive!" he said, and drawing a small flask from his pocket he poured a few drops of brandy between the lips of the senseless man.

There was a faint sigh, followed by a feeble voice, which uttered the one word, "Gallia?"

"Yes, yes! Gallia!" echoed Servadac, eagerly.

"My comet, my comet!" said the voice, so low as to be almost inaudible, and the unfortunate man relapsed again into unconsciousness.

"Where have I seen this man?" thought Servadac to himself; "his face is strangely familiar to me."

But it was no time for deliberation. Not a moment was to be lost in getting the unconscious astronomer away from his desolate quarters. He was soon conveyed to the yawl; his books, his scanty wardrobe, his papers, his instruments, and the blackboard which had served for his calculations, were quickly collected; the wind, by a fortuitous Providence, had shifted into a favorable quarter; they set their sail with all speed, and ere long were on their journey back from Formentera.

Thirty-six hours later, the brave travelers were greeted by the acclamations of their fellow-colonists, who had been most anxiously awaiting their reappearance, and the still senseless savant, who had neither opened his eyes nor spoken a word throughout the journey, was safely deposited in the warmth and security of the great hall of Nina's Hive.

END OF FIRST BOOK