"I may add that the court took occasion to note that from July, 1882, to August, 1883, not less than 50,000 rations were taken in the steamers Neptune, Yantic, and Proteus up to or beyond Littleton Island, and yet of that number 1,000 only were left in that vicinity, the remainder being returned to the United States or sunk with the Proteus. This was the provision that was made under your instructions for Greely's arrival at Cape Sabine, although the officers in your department connected with this subject again and again urged the propriety of making large depots on the east side of Smith Sound, and notwithstanding the fact that Lieutenant Greely himself, in a letter addressed to you from Lady Franklin Bay, bearing date August 15th, 1881, said: 'I feel it proper to here state that, in my opinion, a retreat from here southward to Cape Sabine, in case no vessel reaches us in 1882 or 1883, will be safe and practicable,' thus foreshadowing to you—his chief, charged with his relief—the very course that he subsequently pursued with such indescribably terrible results.

"If strict obedience to orders be the highest duty of a soldier, let Garlington have the credit which the court accorded to him, of having faithfully executed yours, that the regret over the fatal consequences to him and his expedition in having done so may be in some degree assuaged with the reflection that, as a soldier, he could have done nothing else. Pardon me if I express my surprise at your attempt, in your memorandum of the 19th inst., to shift the responsibility of Garlington's instructions from yourself to Greely. When the court says Garlington carried out your orders, you in substance answer: 'They were Greely's instructions, not mine.' Does it not occur to you that the country may think if Greely is to be responsible for the orders that issue from your high office, that he should also enjoy its emoluments and dignities?

"Amid the expression of the world's admiration for the heroic conduct of Lieutenant Greely and his courageous band, the one word of reproof and criticism from his chief will be an unexpected greeting to him emerging from the Arctic night of suffering and starvation. "LINDON KENT."

CHAPTER XXVII.

LIFE AT FORT CONGER.

The Life of the Colonists at Fort Conger—In Camp—Erecting a House—Scientific Observations—Sergeant Brainard Establishes a Depot of Provisions at Cape Beechey—An Arctic Winter—Meteorological Phenomena—Aurora Borealis—Tidal Observations—Pastimes and Amusements—Among the Floes—Difficult Travelling over Hummocks and on the Frozen Sea—Dr. Pavy, Sergeant Rice, and Esquimau Jens Edwards Undertake a Sledge Journey on the Frozen Arctic—A Wonderful Escape—Graphic Description of Sergeant Rice—Lieutenant Lockwood's Journey to the Highest Point ever Reached—Along the Coast of Greenland—Lockwood Island—Incredible Hardships.

OUT of the twenty-five colonists left by the Proteus at Lady Franklin Bay, but seven could be saved by the rescuing party under the command of Commander W. S. Schley, which left the harbor of New York in May, 1884.

The story of the life at Fort Conger, as told by Major Greely and the other survivors, is most interesting, while the record of their scientific observations and explorations adds greatly to our knowledge of a land hitherto almost unknown, and the tale of their sufferings from hunger and cold during the winter of 1883 to 1884 is sad and harrowing in the extreme.

After the departure of the Proteus, which conveyed the colonists to Lady Franklin Bay, on August 25th, 1881, the command lived in tents until September 2d, when the double house, which had been constructed in the United States, having been erected, was taken possession of. This afforded far greater protection from the cold, as it was a house within a house. It was divided into two main compartments, with a small kitchen between, the officers occupying one and the enlisted men the other of these two rooms. Cooking was done in common and all fared alike, messing in the quarters in which they lived. The meals were: breakfast at eight, a light lunch at eleven A. M. and nine P. M., and dinner at four.

Their house was finished about a week after the Proteus left. It was named, in honor of Senator Conger, Fort Conger. During the first month the cold affected the men more

than at any subsequent time at Fort Conger. Later on in December the temperature sank to from fifty to sixty-five degrees below zero, and so remained for days at a time, but even in that weather the cook's favorite amusement was dancing bare-headed, bare-armed, and with slippered feet on the top of a snow-drift. During the day the men dressed in ordinary outside clothing, but their flannels were very heavy.

ARCTIC REGION—BEECHEY HEAD.

Five of the men were generally, for a part of the day, engaged in scientific work under Lieutenant Greely's direction.

Scientific observations had been commenced at once upon landing, and were continued without intermission until the abandonment of the post. These were meteorological, astronomical, and magnetic, comprising also the temperature of sea-water, thickness of ice, and the direction and speed of the

tides. Major Greely also conducted a series of experiments on the velocity of sound at different temperatures.

The men not engaged in scientific work were employed generally about an hour a day, and devoted the remainder of the time in amusement. All slept in bunks. The quarters were heated by a large coal-stove, the average heat maintained being fifty degrees above zero. Playing checkers, cards, and chess, and reading were the amusements of the evening. The life was said by Lieutenant Greely to be far from a lonely one, and many of the men said they had never passed two happier years than those spent at Fort Conger.

On September 1st, Kennedy Channel having opened, Sergeant Brainard, in charge of a party in boats, established at Cape Beechey a depot of supplies to be used in the projected exploration of North Greenland, and in November, twenty days after the departure of the sun, Lieutenant Lockwood, Sergeant Brainard, and seven men, with a sledge and dog-team, attempted to cross over to Greenland to examine the provisions left at the Polaris camp by Hall; but the darkness and drifting ice prevented their success, and they were compelled after much suffering to return, one of the party being badly frostbitten. It will be remembered that when the Proteus left Lady Franklin Bay the number of dogs was much reduced by sickness and death, but those left were carefully looked after, and by breeding Major Greely was able in the spring of 1882 to put two good teams in the field, and in nearly all of his explorations the dogs were found most useful and almost indispensable accessories.

On October 15th the sun left them for 135 days, and a twilight, varying from half an hour to twenty-four hours, succeeded. For two months it was so dim that the dial of a watch could not be read by it. On April 11th the sun came above the horizon and remained there 135 days, giving the party a great sufficiency of midnight sun. During three months the stars were visible constantly, the constellations of Orion's Belt and the Great Bear being the brightest. The North Star looked down from almost overhead. Standing alone outside the fort on one of these nights the scene was weirdly grand. To the north flamed the aurora borealis, and the bright constellations were set like jewels around the glowing moon. Over everything was dead silence, so horribly oppressive that a man alone is almost tempted to kill himself, so

lonely does he feel. The astronomer of the party said that with the naked eye a star of one degree smaller magnitude than can be seen here in the same way might be discerned. The moon would remain in sight for from eleven to twelve days at a time.

An aurora borealis, as seen by the colonists at Upernavik, is thus described by one of their number:

"It first appeared in an arch extending from west-by-north to northeast; but the arch shortly after its first appearance broke up and disappeared. Soon after this a new display began in the direction of the western foot of the first arch, preceded by a bright flame, from which emanated rays of a pale straw-color. Another simultaneous movement occurred at both extremities of the arch until a complete segment was formed of wavering perpendicular radii. As soon as the arch was complete, the light became greatly increased, and the prismatic colors, which had before been faint, now shone forth in a brilliant manner. The strongest colors, which were also the outside ones, were pink and green, on the green side purple and pink, all of which were as imperceptibly blended as in the rainbow. The green was the color nearest the zenith. This magnificent display lasted a few minutes; and the light had nearly vanished, when the northeast quarter sent forth a vigorous display, and nearly at the same time a corresponding coruscation emanated from the opposite extremity. The western foot of the arch then disengaged itself from the horizon, crooked to the northward, and the whole retired to the northeast quarter, where a bright spot blazed for a moment, and all was darkness. There was no noise audible during any part of the phenomenon, nor were the compasses perceptibly affected."

The long Arctic winter was necessarily monotonous, but the regular routine of observations, coupled with such military discipline as was not inappropriate to the climate and the mode of living, rendered it more tolerable. One hour's exercise daily was exacted of all. The men were required to bathe once a week, and great care was taken by frequent inspection to see that the quarters and particularly the berths were kept clean. The efficacy of the hygienic arrangements adopted is fully demonstrated by the fact that there was no scurvy in the expedition, notwithstanding that the water used was from melted ice invariably obtained from the floe.

Thanksgiving and national holidays were invariably celebrated by a good dinner, and the first Christmas was rendered pleasant by presents for every member of the expedition from unknown but thoughtful friends.

The thermometer registered on June 30th, 1882, the highest temperature at Lady Franklin Bay which we knew during our stay. It was fifty-two degrees above zero. The lowest was in February, 1883, and was sixty-six degrees below zero. In this February our mercury froze and remained solid for fifteen days, so intense was the cold. The mercury in the thermometer invariably rose during storms or high winds. The highest barometer was slightly above thirty-one inches and the lowest slightly below twenty-nine inches, showing a great range. The greatest variations were in the winter. The electrometer, an instrument used to ascertain the presence of electricity, was set up, but to the astonishment of Lieutenant Greely not the slightest results were obtained. The displays of aurora were very fine, but not to be compared with those seen at Disco Island or Upernavik. As far as Lieutenant Greely could observe, no crackling sounds accompanied the displays, and the general shape was that of a ribbon. The southwesterly horizon was the quarter in which the brightest displays were seen. Sir George Nares reported in 1876 that no shadow was cast by the aurora, but Lieutenant Greely says that he distinctly observed his shadow cast by it. There were no electrical disturbances save those manifested by a rumbling of distant thunder heard twice far away to the north.

In the case of the tidal observations made, a very interesting fact was discovered, viz.: that the tides at Lady Franklin Bay come from the north, while those at Melville Bay and Cape Sabine come from the south. The temperature of the north tide is two degrees warmer than that of the south tide at Cape Sabine. Why this was Lieutenant Greely would not venture to state. He used in measuring the ebb and flow of the tides a fixed gauge, an iron rod planted in the mud. The average rise of spring tides at Lady Franklin Bay was found to be eight feet. At Cape Sabine the highest tides rise twelve feet. Surf was only observed twice during the two years. At Lady Franklin Bay the average temperature of the water was twenty-nine degrees above zero, or three degrees below the freezing point. Wolves weighing ninety pounds were

killed around Fort Conger, and there are foxes and other animals there. Of fish there is a wonderful scarcity. Perhaps the greatest surprise of the expedition was the taking from Lake Alexander, a fresh water lake, fifteen feet above the sea level, of a four-pound salmon. From the bay or sea only two very small fish were taken during the entire two years, and very few are to be found north of Cape Sabine.

The vegetation at Lady Franklin Bay is about the same as at Cape Sabine, and comprises mosses, lichens, willows, and saxifrage. Snow-storms are, of course, most frequent, and rain falls very rarely. The highest velocity of the wind was registered during a terrific snow-storm—seventy miles per hour. Lockwood's trips to the north in 1882 and 1883 were productive of the most valuable results. Standing, on the 19th of May in each year, where Dr. Hayes had formerly stood at about the same day, Lockwood, from an elevation of 2,000 feet, using his strongest glass on Hall's Basin and Robeson's Channel, could discern nothing but ice-packs. Here it was Dr. Hayes claimed to have seen his open Polar Sea.

Three memorable expeditions were undertaken by the Greely party from their station at Fort Conger, on Lady Franklin Bay. One was to the north, along the coast of Grinnell Land, by Dr. Pavy and Sergeant Rice. The second was also to the north, along the coast of Greenland, by Lieutenant Lockwood, in which the point farthest north was reached. The third was to the west, in the interior of Grinnell Land, by Lieutenant Greely. In the first expedition, which consisted of Sergeant Rice, Dr. Pavy, and Esquimau Jens, the party, after visiting a couple of caches that had been previously deposited along the shore, left the land and travelled in sledges over the frozen ocean, with the object of getting as far north as possible. The thrilling incidents of the journey were carefully noted and most graphically described by Sergeant Rice in his diary. Nothing can more clearly portray the difficulties and dangers that beset Arctic travellers. The narrative is here given as found in the diary taken from the unfortunate explorer's dead body:

"We travelled from floe to floe, through the bursting walls of ice, slipping and falling on the slippery and uneven footing at times and struggling in soft snow at others; extricating the dogs that got caught up in the hummocks, and cutting with

axe through the most difficult passages; raising the loaded sledge over icy obstacles and lowering it—with insecure footing—on the other side. Then again we would stumble into treacherous snow which had crevices and fissures, and from which, standing thigh deep, we had the greatest difficulty in extricating the sledge and landing it again on hard ice. We travelled over all the ground twice, it being impossible to move at all with more than half our load; and the hopeful anticipation of reaching at last the eighty-fourth parallel, that buoyed us up when Cape Sheridan was left behind, had given way to a keen appreciation of the fact that if four miles per day could be made it would be all we could expect. This would place us at the highest latitude ever attained—for only twenty-five miles of ice lay between us and Markham's farthest—and we had twenty days' rations still unconsumed; but the value of our trip was fast depreciating when we reflected that the difference between the highest point we could reach and that already attained could give us little expectation or hope of unlocking any additional secrets of this mysterious sea.

"We were at all times so beset and surrounded by hummocks that a view of even the shortest distance could only be attained by scaling a paleocrystic berg. After every short advance of perhaps fifty or seventy-five yards we would seek an elevation to ascertain where next an opening occurred. Often Jens, descending from an icy pinnacle, would turn to us, and, withdrawing his hand from the mitten and holding it palm upward, would extend his separated fingers and shake his head in a hopeless manner. Never, in all his existence in the land of desolation, had his eyes met such a view. Our observations from different points soon convinced us that advance directly north from Cape Henry was impossible, but the route across James Ross Bay toward Cape Hecla appeared to be better.

"At 3 A. M., April 22d, after a dreary night—during which our sleep was disturbed by the howling of the dogs as they crowded against the tent for shelter from a strong southeast wind that was blowing—we aroused and prepared to start. The high wind of the night was followed by a strange bewildering morning, the atmosphere in an indefinable condition, which destroyed shadows and distorted heights and distances in a strange manner. The way appeared smooth until our

stumbling, uncertain movements and false estimates of distances proved that our eyes could not be trusted. We carefully advanced—the conditions gradually becoming more favorable—until, as we neared the shore at Cape Hecla, Jens cried out: 'Emerk!' or, water ahead! We paid no attention to his remark, which we supposed referred only to some tidal crack or local affair, and were soon astounded to see before us a belt of open water extending the whole line of coast from Hecla to Henry, and also as far as we could see toward Cape Columbia. To the north also there was an open space of water indicated by the heavy water clouds that hung over the place. The water in front of us was at least half a mile wide, and ice of considerable weight and draught was sailing toward Cape Henry with the tide. The doctor, by planting sticks and taking bearings on the land, soon proved that the floe was pivoting and swinging from the shore.

"As usual, we had only half our effects on the sledge. We deposited these and returned to our camp for the others. Reaching the open water again, we found it had widened. After watching for some time in hopes of a favorable change in the movement of the ice, we decided that our only chance of getting off the floe was at Cape Joseph Henry, where, from our distant view, the ice appeared to touch the land. With light sledge, selecting only our most valuable effects—or rather those most necessary to our preservation—we started for the cape, and by a very forced march arrived near there at half-past four P. M. to find the water extending around Cape Joseph Henry and also to the northeast as far as we could see. We could do nothing more in any direction, and, this part of the floe appearing most likely to connect itself with the land, we concluded to make it our headquarters and keep in readiness to take advantage of the first chance for landing. We melt some ice to quench our thirst, feed the dogs, and then select the most substantial-looking part of the floe—near the edge—where we can be close enough for a dash ashore should opportunity offer, and at the same time safe from the possible breaking up of the margin of the ice. It next occurred to us that our near future might be a stay of months on the floe, in which case all our provisions would not be too much. The doctor and Jens then started to return to the northern end of our track at Cape Hecla to bring that which we had abandoned. Two only were required to go

over the broken road; in fact, for all of us to go would reduce the chances for an occasional ride on the empty sledge going out. The writer was at the time rather heavily handicapped with a hand which had received a recent severe cut, and stayed behind. As it was necessary that a look-out should be kept, I was to get some rest, so as to go on watch on the return of my companions. They left me at 7 P. M. The weather was then calm and pleasant. I had no shelter (the tent was part of the load for which they had returned), but as soon as I could give up the contemplation of our rather unpromising surroundings I crawled into my sleeping-bag, which I laid on the ice under the lee of a hummock.

"When I turned in the sky was fair, with the exception of the heavy water clouds that hung to the north and west. I do not know how long I slept, but was awakened by the snow drifting in the mouth of my bag. I dragged myself out and found it snowing and drifting violently. The wind, which was evidently increasing, was from the north, and it at once occurred to me that the storm was local, originating in the water clouds that hung over the belts of water. My first step was to look up our traps, so that no article might be blown away or covered up. The small and light articles I tied to the heavy ones. I then looked about me, and admit that I thought there was cause for alarm. The snow was falling thickly and accompanied with a blinding drift off the ice, so that to windward I could see only a few yards. In the opposite direction the dark frowning front of Cape Joseph Henry loomed up through the storm with an awful and imposing appearance. Wishing to know if the pack had neared the shore, I clambered up the fringe of hummocks on the edge of the floe, and saw that although the belt of water separating us from land had diminished in width, it still formed an impassable barrier, showing up in inky blackness through the storm. I could not see far, but could follow its dark outline some distance with the eye in the direction of Conical Hill and to the eastward, where it was lost in the storm, which enrobed everything in a white sheet.

"I became very apprehensive for the safety of the doctor and Jens, as well as thinking my own situation rather critical. They might become lost in the storm and thus separated from me, which might be a state of affairs worse for them, as the pack might be breaking up and leave them cut off both

from the provisions they had gone for and those with me. The observation I made that the ice was moving out of James Ross Bay did not add to my peace of mind. This was certainly the case, as the shore to the south around the cape was opening up gradually. I could do nothing but hope that the storm was local and would not be of long duration, and that my unfortunate companions might not go astray before it ceased. Being now about as cold from standing in the storm as I could very well bear to be, I emptied the snow from the sleeping-bag and arranging the flap so as to keep out as much of the snow as I could, I crawled in but was truly miserable; the snow was driven with such force as to effect an entrance through the smallest openings. That which had entered at first, melted and then froze around my face and neck; more drifted in, and, added to the physical discomforts, my anxiety was too great to admit of rest. Toward morning I fell into a doze. Occasionally looking out, I found the weather still stormy but improving.

"At a quarter-past four A. M. I heard the dogs barking and turned out to find my comrades safely returned. They had been so fortunate as to reach the provisions and to start to return before the storm had attained a sufficient height to prevent them. After that the wind was in their backs, and the sagacious dogs faithfully following the tracks back, enabled them to travel with greater celerity than could be expected under such circumstances. They had had a very hard time, however, and were completely tired out. We erected the tent and prepared a meal, after which they turned in to sleep while I took up a position on the top of one of the hummocks at the edge of the floe. The morning had turned out a beautiful one after the storm, which ended as quickly as it had begun. For some time I could note but little change, but was convinced that the pack was moving out of James Ross Bay, as the land was opening up to view around Conical Hill, and Cape Henry was presenting a different phase. After a few hours I was startled by the grinding, crushing noise of the ice in contact with the shore or ice-foot some distance to the west, inside the bay. It was evident that the pack had swung so as to touch the land and I instantly awakened my companions. They, poor fellows, had not been long asleep, and I am sure that nothing less than the intelligence that there was a chance for escape would have induced them to overcome their weariness. We repaired again to our outlook, and after concluding that it was the ice and land, not ice and ice, which were in contact—the pack, so far as we could see, was still unbroken—we hastily made preparations to land before the opportunity was lost, if there was any.

"We quickly gathered up only what was necessary, leaving tent standing, with provisions, clothing, alcohol and dog-food, taking only sleeping bags, cooking apparatus and the chronometer and sextant. We thought there might be a chance to return for our other property, even if we could get ashore, and perhaps the contingency which we entertained as most likely was the probability of our return for a longer wait. The thundering noise of the grinding ice did not promise a very good portage. Jens, a little bewildered, drove rapidly in the direction of the sound, which appeared to be from a point about a mile inside of Cape Henry. As we neared the place the terrific noise of the grinding pack increased so that it was deafening, and our hurried remarks had to be shouted in each other's ears. Drawing near to the edge of the ice we found it undergoing a terrific pressure. The whole immense pack was moving steadily and perceptibly out of James Ross Bay, and at this point it was forced with tremendous weight against the lofty ice-foot, which similar causes had erected or strengthened for years. The ice-foot was forty or fifty feet in height, presenting a rugged front of immense blocks of ice cemented together, and its thousands of tons of weight could only have been forced up in such a manner by the mighty pressure of a frozen sea in motion. As we looked the edges of the floe would break, where weak, against the ice wall, and the pieces forced upward would be kept in motion like jugglers' balls for a while and then tumbled down into the narrow water space farther on where the floe did not touch the land, or landed on some ledge that gave them lodgment. To cross amid this commotion appeared very dangerous; but would we ever have another opportunity?

Our consultation was carried on in shouts and pantomime. We drew near a point where it appeared comparatively easy to scale the ice-foot on the other side, and where the falling débris of ice could be perhaps avoided. To test the feasibility of the passage, one of us dropped down to the lower level of broken ice that was held together by the pressure, and passing almost completely over, returned quickly. Standing