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THE ROMANCE OF POLAR EXPLORATION

INTERESTING DESCRIPTIONS OF ARCTIC AND ANTARCTIC ADVENTURE FROM THE EARLIEST TIME TO THE VOYAGE OF THE "DISCOVERY"

BY

G. FIRTH SCOTT

AUTHOR OF "FROM FRANKLIN TO NANSEN," "THE ROMANCE OF AUSTRALIAN EXPLORING," "COLONIAL BORN," *&c.*

WITH TWENTY-FOUR ILLUSTRATIONS

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Preface

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While stories of the Polar explorers and their efforts to reach the Poles have been told again and again, the constant renewal of expeditions adds, every year, fresh incidents to the record, until it may almost be said that the fascination of the frozen regions is as inexhaustible as the list of Polar heroes is illimitable. Nor is the interest confined solely to the achievement of modern explorers. However great the results of their exertions may be, the fact that, in spite of all the advantages conferred by recent scientific discovery and modern appliances, the explorers of to-day have failed to penetrate the uttermost secrets of the worlds of ice, renders more impressively heroic the struggles of the earlier travellers, whose equipment, viewed in comparison with that of modern man, was apparently so inadequate and often inappropriate.

No series of Polar adventure stories would be complete without a prominent place being given to the earlier explorers, and especially to that British hero, Franklin, whose name is so inseparably associated with the history of Arctic exploration. The account of his daring voyages and of his [Pg 6] tragic end, at the moment of victory, has already been given in many a form; but the tale is one which will stand re-telling for generations yet to come. In the present instance it has been of necessity briefly written, but in such a manner as will, it is hoped, without loss of interest, render clear a comparison of the conditions under which he and his brave companions worked and fought to their death, with those that existed for later expeditions and especially the expeditions of Nansen, Peary, and Abruzzi.

The Antarctic, equally with the Arctic, now commands the attention of man. In the South, as in the North, the British race has again produced explorers who have fought their way into the icy fastnesses. From the time that Captain Cook sailed round the unknown southern ocean, more than a century ago, the British flag has waved in the forefront of the advance. The work which Sir James Ross began, over half a century since, has now been carried farther than ever it was anticipated it could be. By the voyage of the *Discovery*, the Antarctic continent has been revealed to within five hundred miles of the Pole, and in the gallant exploits of the commander, Captain Robert Scott, there are many who see a repetition of all that made the name of Franklin so immortal.

The source of the information on which these stories are based (as is frequently mentioned in the [Pg 7]

text) is the personal narrative of the explorer concerned, where available; and if the interest aroused in any of them requires more to satisfy it than the exigencies of space renders possible in this volume, the attention which will thereby be drawn to the more comprehensive records will stand as a slight acknowledgment of the indebtedness of the writer of these re-told stories to the authors of the original narratives.

G. FIRTH SCOTT.

LONDON, 1906.

Publishers' Note

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Our thanks are due to Lieut. Shackleton, R.N.R., of the *Discovery*, for the use of the original drawing facing page 344, and also for permission to use the Illustrations facing pages 310, 340, 348. To Messrs. Alston Rivers, Limited, for permission to use the Illustration facing page 320 from Dr. H. R. Mill's "Siege of the South Pole." To Messrs. Hutchinson and Co., for the use of Illustrations facing pages 28 and 272, and Frontispiece, from "The Voyage of the Polar Star," by the Duke of the Abruzzi. To Messrs. Geo. Newnes, Limited, for the Illustration facing page 305 from "First on the Antarctic Continent," by C. E. Borchgrevinck. To Messrs. Longmans, Green & Co., for permission to reproduce the Illustration facing page 256 from "New Land," by Otto Sverdrup.

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THE ARCTIC REGION

The Mystery of the North Pole—The First Explorer—"The Great Dark Wall at the End of the World"—"Frost-Smoke"—The Lights and Sounds of the North—The Aurora Borealis—Mock Moons—The Early Adventurers: Willoughby, Frobisher, Davis, Hudson, Baffin, Ross, and Parry—The North-West Passage.

In all the range of romantic adventure to be found in the history of man, there is, perhaps, none which appeals so strongly to the imagination as the search for the Poles. In all the tales of daring courage and patient, persistent bravery, two qualities which stand foremost in the admiration of every English-speaking boy, the tales of the fearless explorers who have faced the terrors and the mystery of the frozen regions are without a rival.

Just as it was the record of his struggles to penetrate into the unknown region of the ice-bound North-West Passage which made the name of Sir John Franklin famous fifty years ago, so is it to-day that the names of Nansen, Peary, and Andrée are household words by reason of the hardihood and indomitable courage shown in their efforts to reach the great unknown Pole. Who is there who has not lingered over the adventures of the *Fram*, that sturdy Norseman's vessel, which combined in herself all the best qualities of previous Arctic ships, and comported herself, whether in the ice or out of it, with a dignity that told of her proud descent and prouder destiny? Who has not marvelled at the sublime audacity of the gallant little band of three who challenged undying fame by seeking the Pole in a balloon, abandoning all the old-fashioned notions about ice-ships and dog-sledges, and trusting themselves and their enterprise to the four winds of heaven and the latest scientific scheme? Who has not been thrilled with the daring shown by Nansen and his trusty lieutenant when, leaving ship and comrades, with their lives literally in their hands, they made their historic dash and emerged with what was then the record of "Farthest North," and which has since been beaten by only twenty miles?

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Full of pluck and daring are all the records of Polar exploration, and, in addition to that attraction, there is something else about the subject which fascinates and holds the imagination. There is a mystery about the cold, white, silent region; the mystery of, as yet, an unsolved problem; the mystery of being one of the few spots on the world's surface where the foot of adventurous man has never trodden. Everywhere else man has gone; everywhere else men of our own race have subdued Nature and wrested her close-kept secrets from her; everywhere else save the Poles, and there not even the grandeur of modern inventive genius has enabled man to become the master. We may be nearer now than ever before; we may have made many places familiar which, less than fifty years ago, were unknown; and we may, in recent years, have disproved the theories of many an ancient explorer; but the Poles still elude us as they eluded those who were searchers a thousand years ago.

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It is no modern idea, this search for the North Pole. King Alfred the Great is credited with having sent expeditions towards it, and long before his day men had sailed as far as they could to the North, far enough for them to return with marvellous tales of wonder and mystery. The earliest of whom there is any record is an ancient Greek mariner, Pytheas, who sailed North until he came to an island which he named the Land of Thule. This may have been the Shetlands; it may have been Iceland; but whatever it was, this ancient mariner was by no means pleased with it, in spite of the fact that the sun never set all the time he was there. This prolonged daylight caused him considerable uneasiness, and he hastened away from it farther to the North, and the farther he went the more curious he found the region to be. The sun, which at first refused to set, now refused to rise, and he found himself in perpetual darkness instead of perpetual day. More than that, he tells how he came to a great dark wall rising up out of the sea, beyond which he could discern nothing, while at the same time something seized and held his ship motionless on the water, so that the winds could not move it and the anchor would not sink. He was quite convinced in his own mind where he had come; the wall in front of him was the parapet which ran round the

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edge of the world to prevent people from falling over, and, like a wise man, he hastened home and told his friends that he had penetrated to the limits of the earth.

What the Arctic regions were then, they are to-day; but we, with a greater knowledge, are able to understand what was incomprehensible to the ancient Greek navigator. At the North Pole itself it is known the sun rises and sets only once in twelve months. From March 21 to September 23 daylight continues; from September 23 to March 21 the sun is never visible. The heat at midsummer is probably never above freezing point; at midwinter the cold is so intense that one's eyes would freeze in their sockets if exposed to it.

At the limit of the ice two phenomena are met with which explain the fanciful legend of Pytheas. As summer gives place to the cold of autumn, and as winter gives way to the mild temperature of spring, there comes down upon the water a dense mass of fog, to which the name "frost-smoke" is given. It would appear, as it rolled along the surface of the ocean, a veritable wall to one accustomed to the clear atmosphere of the Mediterranean, and a thin sheet of ice might give the meaning to the "something" which held the ship stationary. Modern explorers have known the [Pg 21] sea to freeze an inch thick in a single night, and ice an inch thick would probably be enough to check the progress of such a vessel as Pytheas would command.

Later navigators, curious to learn whether his story were true or not, followed his course. Some of them went on until they were caught in the rigours of the Arctic winter and perished in the crashing ice-floes. Occasionally some came home again, after having reached far enough to see the great icebergs, floating with all their stately majesty in the blue waters and towering as high as mountains, their summits a mass of glittering pinnacles and their sides scored and grooved with cavities and caverns. Some of them saw the animals which live in that cold, barren region; the great white bear, with its coat of thick shaggy fur, its long ungainly figure and heavy swaying neck; the walrus, with its gleaming tusks hanging down from its upper jaws; the seals, with their great round eyes staring at the unknown intruders; above all, the huge whales, spouting and floundering in the sea, coming to the surface with a snort which sent the spray flying high in the air, and disappearing again with a splash that was like a crashing billow. Little wonder that those who returned from seeing such sights and hearing such strange sounds should tell wonderful stories about the weird creatures inhabiting the place.

The sounds must have been as terrifying and mystifying as the sights, for in the clear, intense [Pg 22] atmosphere of the winter months, noise travels over almost incredible distances. When Parry was on Melville's Island, he records having heard the voices of men who were talking not less than a mile away. In the depth of winter, when the great cold has its icy grip on everything, the silence is unbroken along the shores of the Polar Sea; but when the frost sets in, and again when the winter gives way to spring, there is abundance of noise. As the frost comes down along the coast, rocks are split asunder with a noise of big guns, and the sound goes booming away across the frozen tracts, startling the slouching bear in his lonely haunts, and causing him to give vent to his hoarse, barking roar in answer. The ice, just forming into sheets, creaks and cracks as the rising or falling tide strains it along the shore; fragments, falling loose upon it, skid across the surface with the ringing sound which travels so far. In the spring the melting ice-floes groan as they break asunder; with a mighty crash the unbalanced bergs fall over, churning the water into foam with their plunge, and bears and foxes and all the other Arctic animals call and bark to one another as they awaken from their winter sleep. Just as these incidents occur to-day, so did they occur a thousand years ago; and if to modern ears they sound weird and awe-inspiring, what must they have been to the men who succeeded Pytheas?

Nor does this exhaust the marvel of this bleak and fascinating region. In the long winter nights [Pg 23] the aurora borealis glares and blazes in the sky, "roaring and flashing about a ship enough to frighten a fellow," as an old quartermaster, who was with Sir F. L. McClintock in his search for Sir John Franklin, used to tell the midshipmen. In the prolonged sunset and sunrise the sky is ablaze with colour, and, when the sun has gone, the rarefied atmosphere produces many curious astronomical figures. As explorers penetrated farther into the great ice-bound region they encountered fresh peculiarities. The moon, which shone continuously during the three weeks of its course, frequently appeared surrounded by belts and bands of light, in which mock moons were visible. Long after the sun had disappeared a mock sun would shine in the sky, and in the twilight, when shadows were no longer cast, men and dogs were liable to walk over cliffs and fall down crevices in the ice through being unable to distinguish them. Penetrating farther into the ice world, they learned that throughout the winter the ice heaved and crashed upon itself, making an incessant uproar as it groaned and creaked. The experience of Nansen and the *Fram* emphasised this, but in the earlier days of Polar research silence was presumed to reign in the vicinity of the Arctic basin.

In those early days the expeditions usually kept close to the northern coasts of either Europe, Asia, or America. Sir Hugh Willoughby, who sailed from England in 1553, confined himself to [Pg 24] seeking the north-east passage from Behring Sea to Greenland along the north coast of Canada. In 1576 Frobisher explored part of the region, the work being continued by Davis, who in 1585-8 discovered and explored the strait which still bears his name, to the west of Greenland. In 1610 Hudson, an intrepid trader and explorer, sailed into Hudson's Bay, and five years later Baffin sailed into and through Baffin's Bay. The result of these two discoveries was to open up a very valuable fur trade, and for the next two hundred years, fur traders and whalers were practically the only men who went into the frozen North. In 1818 the British Navy again entered the field for the purpose of mapping out the northern coasts of America. Captains Ross and Parry were sent out in two vessels, with the result that knowledge of the locality was extended by the discovery of

Lancaster Sound, Prince Regent Inlet, Barrow Strait, and Melville Island. The location of these islands and straits aroused still keener curiosity as to whether there was or was not a passage for ships leading from the Pacific to the Atlantic Oceans along the north coast of America. The search for the North-West Passage was the dream of every Arctic explorer at this period. It fell to the lot of one man to prove the existence of the passage, at a price, however, of his own life, and the lives of all his companions, as well as the loss of his two ships. This was Sir John Franklin, whose Polar exploits form the subject of the succeeding chapter.

CHAPTER II
SIR JOHN FRANKLIN

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Young Franklin—His Dreams of Adventure—He becomes a Sailor—His First Arctic Expedition—Fails to get through Behring Straits—Explores Baffin's Bay—The 1845 Expedition—The *Erebus* and *Terror*—The "Good-Bye" at Greenland—Wellington Channel—They select Winter Quarters—Discovery of the North-West Passage—Death of Franklin—Prisoned in the Ice—The Crew Abandon the Ships—Defeat and Death.

Sir John Franklin was born at Spilsby, in Lincolnshire, on April 16, 1786, and was one of a family of ten. It is said that his father originally intended him for the clergy, but the boy had too restless and roving a nature to look with contentment upon a quiet, uneventful life. Nelson was the idol of his heart, and although a hundred years ago boys were not quite so well provided with books and stories of their heroes as they are to-day, young Franklin managed to acquire enough knowledge of the doings of Nelson, and the other great British Admirals, to make his heart thrill with enthusiasm for them, and for the element upon which their greatness had been achieved.

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His home was not so many miles away from the coast but that he had a personal acquaintance, from early boyhood, with the scent of salt water and the sight of the open sea. That, combined with what he learned of Nelson, and the romantic yarns spun to him by any old sailor he chanced upon, exerted over him the spell which, in all ages, has so powerfully influenced British boys. The long stretch of moving water, which rolled between him and the skyline, was the home of all that was wonderful and glorious; the ships which sailed over it were, to his enthusiastic mind, palaces of delight, journeying into realms of mystery, adventure, and beauty. Over that sea lay the lands where the coco-palms grew, where Indians hunted and fought, and where mighty beasts of strange and fantastic shapes roamed through the palm groves. Over that sea, also, lay the realms of ice and snow, of which more marvellous tales were told than of the golden islands of the Southern Seas. And to sail over that sea a great yearning came upon him. The life on shore, in peaceful, steady-going Lincolnshire, was too dreary and hopeless for him; nowhere could he be happy save on that boundless ocean, with room to breathe, and surrounded by all the glamour of romance.

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Fortunately for the glory of British naval history, the elder Franklin did not shut his eyes to the attractions the sea had for his son, but, as a wise parent, he regarded the wish to follow the sea as merely a boyish whim. It would be better to let the boy have a taste of the realities of the life at once, and so cure the fancy which threatened to interfere with the paternal desires as regards the clergy. Every one knew how attractive a sailor's life looked from the shore, and most people knew how much more attractive life on shore looked from the sea. If John wanted to see what a sailor's life was like, he should have his opportunity, and the father, in arranging for his son to sail in a trading vessel to Lisbon and back, probably felt satisfied that the rough fare and hard work he would experience would effectually cure him of any desire for more. But the future Arctic hero was made of sterner stuff than to be turned away from his ambition by such trivial circumstances. He returned from the Lisbon trip more enthusiastic than ever for a sailor's life. His father gave way before so much determination, and young Franklin shortly afterwards entered the Navy. His first ship was H.M.S. *Polyphemus*, and he was present on board at the battle of Copenhagen, under the supreme command of his idol Nelson.

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His first Arctic experience did not come until 1818, when he had reached the rank of lieutenant and was second in command of an expedition sent out to find a way through Behring's Straits. Two vessels formed the expedition—the *Dorothea*, 370 tons, under Captain Buchan, and the *Trent*, 250 tons, under Lieutenant Franklin, the latter carrying a crew of ten officers and twenty-eight men. Their instructions were to sail due North, from a point between Greenland and Spitzbergen, making their way, if possible, through Behring's Straits. The ships, which would to-day only rank as small coasting craft, were soon imprisoned in the ice and so severely crushed that as soon as the winter passed and escape was possible, they were turned towards home. The practical results of the expedition were valueless, and only one circumstance in connection with it saved it from being a failure. This was the introduction of Franklin to that sphere of work which, during the remainder of his life, he was fated so brilliantly to adorn.

The following year, 1819, saw him again facing the North, this time in company with Captain Parry, and with a well-arranged plan of operations. Parry was to remain in the ships and explore at sea, while Franklin was to push along the shores of Baffin's Bay, making as complete a survey as possible. For three years the work was continued, until, by 1822, the party had travelled over 5550 miles of previously unexplored country along the North American coast. Returning to England, Franklin enjoyed a well-earned rest, until, in 1825, he was placed in charge of an

expedition to complete the surveys of the coast along which the North-West Passage was supposed to run. With the experience of his former expedition, he was able to work more rapidly on this occasion, and by 1827 he was back again in England with his task completed. Not alone had all the surveys been carried out, but he had demonstrated his qualities as a leader of Polar expeditions by returning with the loss of only two men.

W. E. PARRY'S ATTEMPT TO REACH THE POLE, 1827.

In spite of this, however, nearly twenty years were to elapse before he was again entrusted with a command in the Arctic regions. He was sent, meanwhile, to be governor of the colony of Tasmania, or, as it was then called, Van Diemen's Land, a large island to the south of Australia. Here in the metropolis, Hobart, a statue of Franklin stands in Franklin Square, and it is curious to think that the man whose work in the Northern Hemisphere is an immortal monument of his name in the region of the North Pole should have his memory perpetuated by a statue nearer the South Pole than any in the Southern Hemisphere. Verily, a world-wide reputation. [Pg 29]

In 1845 the expedition started which, more than anything else, tended to make Franklin the popular hero he has become. The *Erebus* and *Terror*, which formed the fleet, had already proved their capacity for withstanding the strain and pressure of the ice-floes. They each carried a crew numbering sixty-seven officers and men, and while Franklin took charge of the *Erebus* with Captain Fitz-James, the *Terror* was commanded by Captain Crozier. The ships were provisioned for three years, and the task set them was to discover and sail through the passage from the Atlantic to the Pacific Oceans. The intention of the Government was to ascertain whether or not this passage existed, and Franklin was instructed to go by Lancaster Sound to Cape Walker (lat. 74° N.; long. 98° W.) and thence south and west to push through Behring's Straits to the other ocean.

Franklin was full of enthusiasm as to the outcome of the expedition. That it would prove the existence of the passage he had no doubt, and subsequent events justified him. But he had bigger notions than merely proving the passage. "I believe it is possible to reach the Pole over the ice by wintering at Spitzbergen and going in the spring before the ice breaks up," he said before starting, and no one would have been surprised had he returned in the three years with a record of the journey. Public interest was thoroughly aroused in the enterprise, and when the two vessels set sail from Greenhithe on May 19, 1845, they had a brilliant send-off. On June 1 they arrived at Stromness in the Orkney Islands, and on July 4 at Whale Fish Island, off the coast of Greenland, where the despatch-boat *Barreto Junior* parted company with them to bring home Franklin's despatches to the Admiralty, reporting "All Well." Later on came the news that Captain Dannett, of the whaler *Prince of Wales*, had spoken to them in Melville Bay. [Pg 30]

Then the months passed and grew into years, and still no sign or token was received from them. Public opinion, stimulated by the interest taken in the departure of the expedition, began to grow anxious at the prolonged silence; but the last despatches had been received and the last tidings direct from the ships had come to hand. Over their subsequent actions and adventures the heavy veil of the Frozen North hung until intrepid searchers raised it and learned the sad but gallant story of how the North-West Passage was discovered and the route to the Pole marked clearer.

When the *Erebus* and *Terror* parted company with the despatch-boat on July 4, they shaped their course through Baffin's Bay towards Lancaster Sound. Continuing their way, they passed Cape Warrender and ultimately reached Beechy Island at the entrance of the then unexplored waters of Wellington Channel. They passed through the channel, taking such observations as were [Pg 31]

necessary as they went, until they had sailed 150 miles. Further progress being stopped by the ice, they passed into another unexplored channel between Cornwallis Island and Bathurst Island which led them into Barrow's Straits, nearly 100 miles west of the entrance to Wellington Channel.

The ice was now forming thickly around them, and attention was directed to discovering a comfortable haven where they could come to rest and remain while the ice closed in around them during the long winter months. A suitable harbour was found on the northeasterly side of Beechy Island and the ships were made snug. All the spars that could be sent down were lowered on to the decks, and the rigging and sails stowed away below before the ice surrounded them, so that when the floes began to pack and lifted the hulls of the vessels, there should be no "top-hamper" to list them over. On the frozen shore huts were built for the accommodation of shore parties, and, as the ice spread around and the snow fell, the men found exercise and amusement in heaping it up against the sides of the vessels as an extra protection against the cold, the thick mass of frozen snow preventing the escape of the warmth from the inside of the ships. But where [Pg 32] there were fires always going to maintain the temperature of the cabins, the danger of an outbreak of fire had to be zealously guarded against. With all the ship's pumps rendered useless by the frost, and the water frozen solid all around, a conflagration on board a vessel in the Arctic seas is one of the grimmest of terrors. The safeguard is the maintenance, in the ice near the vessel's side, of a "fire hole," that is, a small space kept open by constant attention down to the level of unfrozen water.

During the long winter months there was plenty of time to estimate the progress they had made, and there must have been considerable satisfaction on all sides at what they had accomplished. They had circumnavigated Cornwallis Island and had reached to within 250 miles of the western end of the passage.

The first Christmas festival of the voyage was kept up with high revel. If fresh beef was not available, venison was, and there was plenty of material for the manufacture of the time-honoured "duff." The officers and men, clad in their thick, heavy fur garments, clustered together as the simple religious service was read, and over the silent white covering of sea and land the sound of their voices rolled as they sang the hymns and carols which were being sung in their native land. Then came the merrymaking and the feasting in cabins decked with bunting, for no green stuff was available for decorating.

The first New Year's Day was saddened by the death of one of their comrades, and the silent ice- [Pg 33] fields witnessed another impressive sight when the crews of both vessels slowly marched ashore to the grave dug in the frozen soil of Beechy Island. The body, wrapped in a Union Jack, was borne by the deceased man's messmates, the members of his watch headed by their officers following, and after them the remainder of the officers and crew. The bells of each ship tolled as the *cortège* passed over the ice, the crunching of the crisp snow under foot being the only other sound till the grave was reached. There the solemn and impressive service of a sailor's funeral was said, the mingled voices as they repeated the responses passing as a great hum through the still, cold air. A momentary silence followed as the flag-swathed figure was lowered into the grave, and then a quick rattle of firearms as the last salute was paid echoed far and wide among the icebergs.

Twice more was that scene repeated before the ships cleared from the ice, and one of the first signs discovered by the searchers after Franklin were the three headstones raised on that lonely isle to the memory of W. Braine, John Hartwell, and John Torrington, who died while the ships were wintering in the cold season of 1845-6.

By July the ice had broken up and the voyage was resumed and passed without any exceptional incident, up to the middle of September 1846, when they were again caught by the ice, but 150 miles nearer their destination than the year before. Only 100 miles more to be sailed over and [Pg 34] they would be the conquerors—but that 100 miles was too firmly blocked with ice-floes for them ever to sail over.

The winter of 1846-7 was passed just off the most extreme northerly point of King William's Land. The ice was particularly heavy, and hemmed the vessels in completely, the surface being too rugged and uneven to permit of travelling in the immediate vicinity even of hunting parties. This was the more unfortunate because the provisions were growing scant, and supplies brought in by hunters would have been of great assistance. At the time of starting, the vessels had only been provisioned for three years. Two had now passed, so that only a twelvemonth's stock of food remained in the holds. It might occupy them all the next summer in working through the remaining 100 miles of the passage, and that would leave them with another winter to face, unless they were sufficiently fortunate in finding open water when they reached the end. But, on the other hand, they might not be able to get through in the time, or the passage might not be navigable. Either possibility was full of very grave anxiety for those in command, for it was a terrible prospect of being left, with 130 men to feed, in the midst of the frozen sea, "a hundred miles from everywhere."

The anxiety felt was shown by the despatch, as early as May, or two months before the first flush of summer was due, of a specially selected party of quick travellers to push forward over the ice [Pg 35] and spy out the prospects ahead. Lieutenant Graham Gore, of the *Erebus*, commanded the party, which consisted of Charles des Voeux, ship's mate, and six seamen. They carried only enough stores to last them on their journey, and each one had to contribute his share to the labour of hauling the hand-sledges over the jagged ridges of broken ice. Skirting along the coast of King

William's Land, they arrived at a point from the top of which they were able to discern the mainland coast trending away to the horizon, with a sea of ice in front. It was the long-dreamed-of end of the North-West Passage.

To commemorate the fact the little party built a cairn upon the summit of the point, which they named Point Victory, and enclosed in a tin canister they deposited, under the cairn, a record of their trip and its result. Twelve years later this record was found, and by it the honour due to Franklin for the discovery of the passage was confirmed. But the manner of its finding must be told later on.

Elated with the success of their efforts, Lieutenant Gore and his companions retraced their way back to the ships, for with the end of their journey so near at hand, all fears of the provisions running short were at an end. As soon as the ice broke up they would be away into the sea they had seen from Point Victory, and sailing home with their mission accomplished, their task completed, and nothing but honour and glory waiting them at home. As soon as they came within [Pg 36] sight of the two ships, perched up among the ice ridges, they shouted out to their comrades to let them know of the success achieved. Round about the ships they saw men standing in groups, but instead of answering cheers, the men only looked in their direction. Unable to understand why so much indifference was displayed, Lieutenant Gore and his companions hurried forward, and, as they came nearer, some of the men separated themselves from the groups and came to meet them with slow steps.

Soon the cause of their depression was made known to the returned explorers. The leader of the expedition lay dying in his cabin on board the *Erebus*.

Lieutenant Gore, his enthusiasm at his success sadly damped, went on board the flagship at once, hoping that the news of victory might still be given to Sir John before he died. He was led into the cabin and briefly told the story of his journey, and how, from Point Victory, he had looked out over to the coast of the mainland. The news, the last which Sir John Franklin was to hear on earth, was perhaps the sweetest he had ever known, for it meant that he had triumphed and had won a lasting name and memory for his services to Sovereign and State. On June 11, 1847, his life ended at the moment of his brightest achievement.

Captain Crozier, of the *Terror*, assumed command of the expedition, and as summer was at hand, [Pg 37] everything was made ready against the time when the ice would break up. Ice-saws were fixed ready to cut passages through the floes when they began to separate, and ice-anchors were run out so that the vessels could be warped along whenever an opening occurred. Daily the crews mustered on board and looked over the ice for some sign of the breaking of their imprisonment, for some loosening of the iron grip of the ice round their vessel's sides, but all in vain. The two ships were wedged in a vast mass of ice, through which it was impossible to cut their way. Instead of breaking up in lesser fields and floes of ice, the mass remained packed, creaking, crashing, and straining by night and day as it slowly made its way nearer the coast of the mainland, carrying the ships with it until they were within 15 miles of Point Victory, and 60 miles of the mainland coast.

Soon the short summer months had passed and the dark period of winter was upon them again, with the provisions daily growing scarcer, and the hope of getting their ships out of the ice fainter. Another evil came upon them when among the members of the crew scurvy, the dreaded enemy of the early Polar explorers, broke out. By the following April twenty of their number had succumbed to it, nine being officers, one of whom was Lieutenant Gore.

On April 22, 1848, the remaining 105 officers and men gathered on the ice around the two ships. They had with them sledges laden with what provisions were left, and two whale-boats. Slowly [Pg 38] and sorrowfully they bade farewell to the vessels which had been their homes for nearly three years, and set out to march over the ice to the mainland. Their plan was to push on until they reached the Great Fish River, where they might obtain succour either from travelling bands of Indians or at some outlying station of the Hudson Bay Company. Travelling at the rate of five miles a day, so rough and difficult was the route, they arrived on April 25 at the cairn where Lieutenant Gore had left the record of his journey over a year before. The canister in which it was enclosed was opened, and round the margin was written this brief, pathetic story:—

"April 25, 1848. H.M.S. *Terror* and *Erebus* were deserted on April 22, five leagues N.N.W. of this point, having been beset since September 12, 1846. The officers and men, consisting of 105 souls, under the command of Captain F. R. M. Crozier, landed here in lat. 69° 37' 42" N., long. 98° 41' W. The paper was found by Lieutenant Irving in a cairn supposed to have been built by Sir James Ross in 1831, four miles to the north, where it had been deposited by the late Commander Gore in June 1847. Sir James Ross's pillar has not, however, been found, and the paper has been transferred to this position, which, it is thought, is where Sir James Ross's pillar was erected. Sir John Franklin died on June 11, 1847, and the total loss of life by death in the expedition has been to this date nine officers and fifteen men. Start to-morrow, April 26, for [Pg 39] Back's Fish River."

The record, left as a sign, should it ever be found, of the direction they had taken, the party resumed their dreary march over the frozen shores of King William's Land. The men formed themselves into teams for the purpose of dragging the sledges and whale-boats, and the officers marched beside them, helping them and encouraging them. Even the snail's pace of five miles a day became too severe a strain for many of the men, weakened as they were by attacks of scurvy and reduced rations. Soon it became evident that if a place were to be reached where help and

food could be obtained before the provisions were absolutely exhausted, it would be necessary for the stronger to push forward at a more rapid rate.

A council was held, and it was decided that the strongest should take enough supplies to last them for a time and push forward as rapidly as possible, while the remainder should follow at a slower rate and by shorter stages. The majority were in the latter division, and only a few days elapsed after the smaller band, numbering about thirty, had left, before the ravages of scurvy and semi-starvation made it impossible for even less than five miles a day to be covered. So debilitated were all the members that further advance was abandoned until they had, by another long rest, tried to recuperate their energies. But the terrible bleakness of the place where they [Pg 40] were wrought havoc among them, and every day men fell down never to rise again, until the only hope for the survivors lay in returning to the ships, where, at least, they would have shelter. Wearily they staggered over the rugged ice ridges, each man expending his remaining energies in striving to carry the provisions, without which only death awaited them. Men fell as they walked, unnoticed by their companions, whose only aim was to get back to the ships, and whose faculties were too dimmed to understand anything else. Blindly, but doggedly, they stumbled onward, silent in their agony, brave to the last when worn-out nature gave way and they sank down, one after the other, till none was left alive, and only the still figures, lying face downwards on the frozen snow, bore mute witness of how they had neither faltered nor wavered in their duty, but had died, as Britons always should die, true to the end.

Their comrades who had left them to push forward for help were equally stolid in their struggle against overwhelming odds. As they were crossing the ice between King William's Land and the mainland, a great cracking of the floes startled them with the fear that the ice was breaking up. Hastily placing their stores in the whale-boat, which they had been dragging in addition to the hand-sledges, they abandoned everything else, fearful lest the sudden opening of the floes might cut them off from a further advance. Harnessing themselves to ropes, they toiled and struggled [Pg 41] onward with the boat. They reached the mainland, but at a terrible sacrifice, for in their haste they had left much of their scanty supplies behind. Their food ran out and hope was almost dead, when they espied a small camp of Eskimo.

Fresh life came to them as they learned that they were nearly up to the Great Fish River, and they bartered away some spoons and forks, Sir John Franklin's star, part of a watch and some other metal articles to the Eskimo for a recently killed seal. Had they waited longer with the natives, they might have obtained more food and have recovered somewhat from their fatigue, but in the mind of each was the memory of their stricken comrades toiling on behind, and hoping from day to day for the arrival of relief. Personal feelings were forgotten before that memory, and the gallant little party resumed its way, fighting with all the dauntless bravery of heroes to win help for their weaker friends—fighting till their limbs refused to move, till their starving bodies were numbed and frozen. Then, falling in their own footsteps, they passed away, one by one, silent and uncomplaining, to the list of Britain's honoured dead.

[Pg 42]

CHAPTER III
THE SEARCH FOR FRANKLIN

Captain Parker's Report—Government offers a Reward—Dr. Rae's Expedition—Captain McClure's Voyage in the *Investigator*—Hardships and Perils—The Meeting with the *Herald*—Lady Franklin still Hopeful—Sir F. L. McClintock's Expedition in the *Fox* with Lieutenant Hobson—Their Sad and Fatal Discoveries—Lieutenant Schwatka recovers the Body of Lieutenant Irving.

The enthusiasm which was aroused over the departure of Sir John Franklin's expedition gave place to a deep national anxiety as the years passed without any word being received of its whereabouts. On October 4, 1849, the *Truelove* arrived at Hull from Davis Straits, and her commander, Captain Parker, reported that he had heard from some Eskimo that the *Erebus* and the *Terror* had been seen in the previous March fixed in the ice, and apparently abandoned in Prince Regent's Inlet. No confirmation was ever obtained for this report, but it served to excite public anxiety still more, and expeditions began to be organised for the relief of the missing explorers. In all, twenty-one expeditions were sent, of which eighteen were British and three American, to search the neighbourhood where it was anticipated Sir John and his gallant band would be. Coals, provisions, clothing, and other necessaries were deposited at different spots in the hopes that they would be found by, and be of use to, the castaways. But, as has already been [Pg 43] stated, none were able to give succour to the men for whose use they were intended.

A great deal of valuable and highly interesting work, however, was done, and in addition to at length discovering enough relics of the party to show that all the members had perished while carrying out their duty, an amount of knowledge was acquired which made the North-West Passage familiar, located the Magnetic Pole, and opened the way for more recent and equally brilliant journeys towards the Pole itself. The general public, as well as the Government, were responsible for search expeditions; but to stimulate the enterprise, the British Government offered a sum of £20,000 to any party of any country that should render efficient service to the crews of the missing *Erebus* and *Terror*. Half that reward was paid to Dr. Rae, who discovered the relics of the party, now at the Greenwich Museum, consisting of Sir John Franklin's star,

some spoons and forks, the remains of a watch, and some other metallic odds and ends.

The story of this discovery was briefly told by Dr. Rae in a letter to the Admiralty. He was, in 1854, surveying the coast of the mainland immediately south of King William's Land, when he encountered a small party of Eskimo hunters. He asked them whether they had ever met other white men, and they told him that four summers before (1850) a number of white men had been encountered by some Eskimo who were catching seals off the south coast of King William's Land. [Pg 44] The white men came from over the ice, and were dragging a boat behind them. By signs they made the hunters understand that they were hungry, and a seal was exchanged for the articles Dr. Rae was shown. Then the white men went on walking over the ice, dragging the boat behind them, one walking in front alone, and all the rest pulling the ropes attached to the boat. A few weeks later they were seen again, this time on the mainland, but all were dead. The place where they were found was about one day's journey from the Great Fish River, and all had evidently died of cold and starvation. They had erected tents and had turned the boat over for a shelter, and some of the men lay under the boat, while others were in and around the tents. One man was some distance away with a telescope slung over his shoulders, and underneath his body was a double-barrelled gun. This man, they said, was the chief of the party.

About the encampment there were plenty of guns and ammunition, but no food. More than likely the unfortunate castaways were too weak from want to be able to hunt, for Dr. Rae, in his reports, stated: "I may add that with our guns and nets we obtained an ample supply of provisions last autumn, and my small party passed the winter in snow houses in comparative comfort, the skins of the deer shot affording abundant warm clothing and bedding."

Next to the story of Dr. Rae's discovery comes the account of the finding by Lieutenant Hobson, [Pg 45] on May 6, 1859, of the record left on Point Victory, and after that again, the recovery, in 1879, by Lieutenant Schwatka, of the United States Navy, of the bodies of several of the *Erebus* and *Terror* crews. But meanwhile a glance may be taken at some of the thrilling adventures which befell the different relief expeditions. The account of Captain McClure's voyage in the *Investigator*, graphically told by himself in his reports to the Admiralty, is full of typical Arctic adventure.

The *Investigator* was one of several ships forming one of the expeditions. After sailing in company for some time they separated to work over set areas. The *Investigator* entered the Polar Sea and sailed along the North-East Passage. She was soon amongst the ice, and sailed on in a depth of 150 feet of water until the pack showed a solid unbroken line in front from east to west. Then she sailed along it, in the hopes of finding an opening; but all that could be seen, beyond the ice, was a vast number of walrus, lying upon it huddled together like sheep. Between the ice and the land, however, there was open water, and here the *Investigator* shaped her course, keeping well in towards the shore on the look-out for natives. There was an interpreter on board, Miertsching by name, so that whenever any natives were encountered inquiries could be made for tidings of the missing explorers. At Cape Bathurst, near the Mackenzie River, a part Franklin [Pg 46] had explored many years before, a large tribe was observed, and at once a boat party put off from the ship.

As they approached the shore, thirty tents and nine winter-houses were seen. Immediately the boats were run ashore a tremendous stir was caused in the village, the men running to and fro and then charging down a steep slope to where the boats were aground on the beach. As they drew near it was seen that each man carried a drawn knife in his hand, as well as bows and arrows, and their warlike intentions were still more clearly shown when they fitted arrows to the bows and began to aim at the white men. The interpreter Miertsching, clad in native costume, advanced from the explorers towards the angry Eskimo, holding his hands above his head in the position which expresses peace amongst these primitive people.

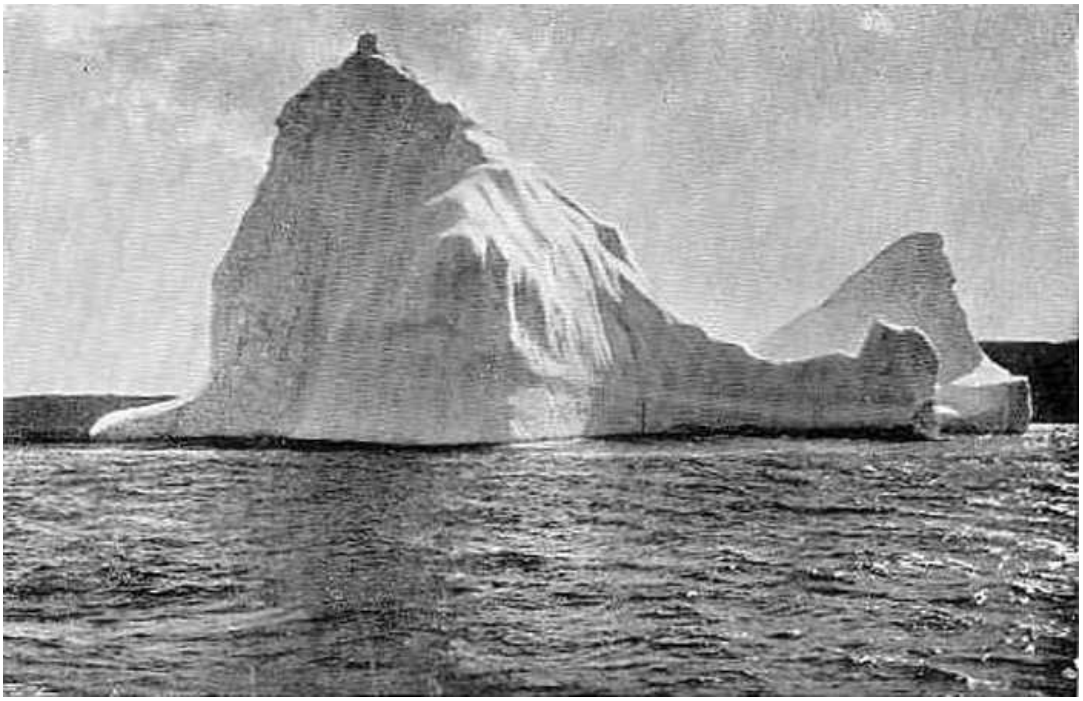
They paused as they saw him, and waited until he came up; but although they put back their bows and arrows when he told them no one wished to harm them, they would not relinquish their knives. As they crowded down to the boats, the captain told him to explain to them that they must put their knives away; but the chief of the tribe immediately retorted, "So we will, when you put down your rifles." To prove their peaceful intentions, one of the rifles was given to the chief to carry while the explorers remained with them, and this action so effectually satisfied them that no harm would be done to them that they offered to let their visitors take charge of their knives. [Pg 47]

The village contained over three hundred men, women, and children, and was formed for hunting purposes. The mass of ice showing across the open passage, they said, was the land of the white bear, an animal which, they explained, was very plentiful and of which they were greatly in fear. Several tales were told of the savagery of these creatures, a woman pitifully bewailing the loss of her little child, who was carried off by one of them when playing at the water's edge within her sight. A less mournful story was that of a seal hunter who, having speared one seal, was sitting by the side of his victim waiting for the mate to appear above the water, when he felt a tap on the back. Suspecting a trick by a fellow-huntsman, he did not turn round, whereupon he received a heavy blow on the side of the head which sent him sprawling. As he scrambled to his feet, angry at his comrade's roughness, he saw a big bear walking off with his seal.

Upon the interpreter explaining how the white men's rifles could kill the bears, the chief at once invited him to come and live with them, offering as inducements his own daughter, a pleasant-looking girl of about fifteen, a fully furnished tent, and all the other necessary possessions of a well-to-do Eskimo. Failing in that, they invited the explorers to a feast of roast whale and venison, salmon, blubber, and other delicacies; but instead of taking from them, the explorers presented [Pg 48]

them with a number of gifts, and left them on the best of terms.

A few days later and farther along the coast another small band was encountered, one of whom was wearing a brass button in his ear. The button was off a sailor's jacket, and upon being asked how he obtained it, the man replied it had been taken from a white man who had been killed by the tribe. He was asked for further particulars, in case the unfortunate might turn out to be one of Franklin's men. The Eskimo replied that it might have been done a year ago or when he was a child, but the huts the white men had built were still standing. The explorers at once persuaded him to take them to the spot, but on arrival they found the huts so weather-worn and overgrown with moss that more than a generation must have passed since they were built.



AN IMMENSE ICEBERG.

This berg was photographed off the coast of Newfoundland. It had probably made its way there from the glaciers of Greenland.

Photo by Parsons.

This was not the only occasion when hopes were raised that some of the missing expedition were about to be discovered. As the *Investigator* continued her voyage along the coast, heavy volumes of smoke were seen rising from a bluff, and the man on the look-out in the crow's-nest at the top of the foremast cried out that he could see white tents and men with white shirts on near them. At once everybody was on the alert. Boats were lowered and rowed quickly to the shore, but on close inspection the white tents were found to be conical mounds of volcanic formation, and the smoke, which was also volcanic, was rising from fissures in the ground. [Pg 49]

Winter was now setting in, and as there was no suitable harbour at hand, Captain McClure determined to pass the season amongst the ice-floes. His decision was largely due to the fact that as the ice was forming around them, a great mass of old ice, over six miles in length and drifting at the rate of two miles an hour, came upon them. Its enormous weight crushed everything out of its way, and the ship could only manœuvre sufficiently to graze it with her starboard bow. Fortunately on the other side of her there was only freshly formed and comparatively thin ice, otherwise she would have been hopelessly crushed at once. As it was, the gradual drifting past of the mass was disconcerting, and it was decided to make fast to it. A great mass which they ascertained extended downwards for forty-eight feet below the surface of the sea was selected, and with heavy cables the *Investigator* was made secure to it. Throughout the winter she remained moored to it, though not without more than one experience of danger.

Soon after making fast to the ice, the first bear of the season was shot. He was a magnificent specimen, measuring over seven feet, but upon being cut up considerable speculation was roused as to the contents of his stomach. In it was found raisins, tobacco, pork, and some adhesive plasters. For some time the combined intellect of the ship's company was exercised to explain [Pg 50] where the bear could have obtained such a varied diet and many suggestions were advanced in explanation. Franklin's ships might be near, some said, or the crews might be encamped on the neighbouring land, and Bruin might have looted their stores. No one struck the correct solution of the mystery until some days later a hunting party came upon a preserved meat tin partly filled with the same sort of articles as were found in the bear's stomach. He had evidently found the tin and sampled its contents, not entirely to his enjoyment, as he had left the larger portion behind. But whence the tin had come they never learned.

The winter having passed without mishap they began to watch for the breaking of the ice. When it began, they had a very narrow escape from destruction. A light breeze springing up the day after open water appeared among the floes, the pack to which the *Investigator* was attached

began to drift. It was carried towards a shoal upon which a huge mass of ice was stranded. A corner of the pack came in contact with the great stationary mass with a grinding shock that sent pieces of twelve and fourteen feet square flying completely out of the water, and, as the immense weight of the moving pack pressed forward, there was a sound as of distant thunder as it crushed onwards. The weight at the back caused an enormous mass to upheave in the middle of the pack, as though under the influence of a volcanic eruption. The great field was rent asunder, the block [Pg 51] to which the *Investigator* was attached taking the ground and remaining fixed, while the lighter portion swung round and, with accelerated speed, came directly towards the vessel's stern.

To let go every cable and hawser which held her to the block was the work of a moment, for every one was on deck keenly on the look-out. The moving mass caught her stem and forced her ahead and from between the moving floe and the stationary mass. The two came into grinding collision and the men on the deck of the vessel saw the great bulk to which the ship had been attached slowly rise. It went up and up until it had risen thirty feet above the surface and hung perpendicularly above the ship. It towered higher than the foreyard, presenting a spectacle that was at once grandly impressive but terribly dangerous, for if it fell over upon the *Investigator* she would be crushed to atoms. For a few moments the suspense was awful, till the weight of the floe broke away a mass from the great bulk, which rolled back with a tremendous roar and rending, and, with some fearful heaves, resumed its former position. But no longer could it withstand the pressure, and it was hurried forward with the rest of the floe, grinding along the surface of the shoal.

The pack having set in towards the shore, the only hopes of safety lay in keeping with the ice, for, if the *Investigator* were pushed ashore by it, there would be little chance of her ever floating again. She was consequently made fast again and carried along, though with a tremendous strain [Pg 52] on her stern and rudder. It was discovered that the latter was damaged, but there was no possibility of unshipping it for repairs while the ice was moving. Towards the afternoon the wind dropped, the drift became less, and for five hours the rudder received attention.

Scarcely had it been replaced when once more the ice began to move, and the crew saw that they were being forced directly upon a large piece of the broken floe which had grounded. Feeling certain that if the ship were caught between the grounded mass and the moving floe nothing could save her from being crushed to pieces, a desperate effort was made to remove the great mass. The chief gunner, provided with a big canister of powder, went on to the ice and struggled over the rugged surface until he reached the stationary mass. He intended to lower the canister under the mass before exploding it, but the ice was too closely packed around it to permit of this being done. There was no time to consider any other plan, so he fixed the blast in a cavity and, firing the fuse, scrambled back to the ship.

The charge exploded just as the pressure of the floe was beginning to tell, but the result was apparently valueless. The *Investigator* by this time was within a few yards of the great mass, and there seemed to be no hope of escaping from the crush. Every one on deck was in a state of anxious suspense, waiting for what was evidently the crisis of their fate.

Most fortunately the ship went stem-on, as sailors term it, and the pressure was directed along [Pg 53] her whole length instead of along her sides. Every plank seemed to feel the shock, and the beams groaned as the pressure increased. The masts trembled, and crackling sounds came from the bulwarks as she strained under the tension. Momentarily the men expected that she would collapse under them, when the result of the gunner's blast was made manifest. It had cracked the mass in three places, and the pressure of the ship's stern forced the cracks open. The liberation from the obstacle was at once evident as the mass slowly divided and, falling over, floated off the shoal. The cable holding the vessel to the floe parted as she surged forward and the ice-anchors drew out, while the blocks of ice, as they turned over, lifted her bows out of the water and heeled her over; but the cheer which broke from the assembled crew drowned all other noise, for it was as though they had been snatched from the very jaws of death.

Subsequent examination of the vessel showed that she had escaped practically without serious injury. Several sheets of her copper were stripped off and rolled up like scraps of paper; but as no leaks were discovered, the loss of the copper was not greatly deplored.

After escaping from these dangers it was hoped that open water would be found, so that the voyage might be continued to other areas which had to be searched, and, as the *Investigator* [Pg 54] drifted along amongst the partly broken up floes, she encountered some rolling swells, which increased the hopes that open water was not far ahead. But in this the crew were disappointed, for although the water near the land was sufficiently free from ice to enable sail to be made, out toward the Polar Sea the pack was heavy and close.

They rounded Cape Lambton on Banks' Land, a promontory which they found rose a thousand feet precipitously. The land beyond gradually lost the bold character of the rugged cape, the island presenting a view of hills in the interior which gradually sloped to the shore, having fine valleys and extensive plains, over and through which several small and one considerable sized stream flowed. A great deal of drift-wood lay along the beach, and the land was covered with verdure upon which large flocks of geese were feeding, while ducks were flying in great numbers. Two small islands were passed off the coast, one of which afforded an example of the force exerted by a drifting Polar Sea ice-floe. The island rose about forty feet above the surface of the sea, and broken masses of ice, which had formed a floe, had been driven entirely over it.

The pack still presented an impassable barrier to their course away from the land, and as the

season was getting late they decided that they would make winter quarters. A suitable bay was found on the north of the island, and there they spent, not one, but two winters, for the ice [Pg 55] remained so thick during the ensuing short summer that it was impossible to move. In the summer, however, if they could not get to sea, they could travel on to the land, and as game was plentiful they were able to keep themselves well supplied with fresh meat. But when winter again came upon them with its cold darkness, the game was scarcer, and, what was worse, the ship's stores were decreasing.

As perhaps another twelve months would have to be faced, every one went on reduced rations, so that the stores should be made to last as long as possible. The approach of the milder weather Captain McClure determined should be made the occasion of a daring expedition. A few of the men were beginning to show signs of sickness, and the captain decided that they should set out in April for the mainland with enough provisions to carry them through. The ship was so slightly affected by the buffeting she had received that the leader could not bring himself to think of abandoning her while he had any stores left and men who were ready to remain with him. Only the least robust of the crew were to go as the overlanding party, and they were to travel to the nearest station of the Hudson Bay Company, and from thence press on to England with despatches for the Admiralty requesting help and provisions for those who remained by the ship. Everything was arranged, even to the date of departure, which was settled as April 15. But [Pg 56] before that day arrived another incident was to transpire.

On April 10, Captain McClure and his first lieutenant were walking over the ice near the ship, discussing the serious turn events had taken, for one of the men had just died from scurvy, and some of the others were in a bad state of health. This was the first death which had occurred, and it naturally cast a gloom over every one. As the two walked, they espied a man coming rapidly towards them from over the ice. He was hastening so much that they thought he must be flying from a bear, and they went forward to meet him. But as they approached him, they saw that he was not one of their own ship's company, for he was of a different build to any of their men, in addition to which his face showed black from between his furs, and he was waving his arms wildly. They stopped, doubtful what to make of him, and he rushed up, still gesticulating and articulating wildly.

"Who are you, and where do you come from?" McClure exclaimed sternly.

"Lieutenant Pim, of the *Herald*, Captain Kellett," the strange figure managed to reply, as he seized McClure's hands and shook them frantically.

Rapidly he told the astounded couple his story, for Captain Kellett, of the *Herald*, had bid McClure God-speed as he was entering the Polar Sea three years before, and the commander of the *Investigator* could not understand how he could have reached Banks' Land. [Pg 57]

The *Herald* was one ship of another expedition which had come in search of the gallant Franklin. She had wintered at Melville's Island, and Lieutenant Pim had set out across the straits with a sledge party on March 10. For a month they had been wandering, and he had happened to be on ahead of his men when he caught sight of the *Investigator* in the distance. He had pushed on to ascertain who she was, when he saw and recognised Captain McClure. His astonishment and excitement overmastered him and he could only halloo and shout and jump about in his glee.

The noise of his shouts reached the vessel where the crew, hearing a strange voice, came tumbling up from below to see who it was that had arrived. The sight of the *Herald* sledge party soon afterwards completed their surprise and gratification, for it meant that close at hand was all the help they needed to successfully insure their liberation.

The whole ship's company journeyed across to where the *Herald* lay, and, in the interchange of yarns and the assurance of abundance of food and rest till the ice broke up, they found just the requisite stimulus to overcome all the evil effects of their past trials and privations. With a few men from the *Herald* to relieve the members of his crew who were on the sick-list, Captain McClure returned to the *Investigator* after a few days, and when the summer arrived he worked [Pg 58] his vessel out into open water. Then he joined company with the *Herald* and sailed for England, whither his despatches and reports had already preceded him and earned him fame.

The return of Captain McClure and the result of his discoveries, together with those of other expeditions, and Dr. Rae's find of Franklin relics, satisfied the British Government that further search was unavailing. As the account of Sir John Franklin's voyage had not yet been found, the honour of proving the existence of the North-West Passage was, for the time being, accorded to McClure, and the Admiralty, satisfied that all the members of the Franklin expedition had perished, and the ships either been abandoned or destroyed, ceased despatching further search parties.

There were, however, a large number of people who were by no means satisfied that everything possible had been learned as to the fate of the *Erebus* and *Terror*. Lady Franklin, Sir John's second wife, was one who refused to give up hopes, and, largely through her efforts, yet another vessel was sent out. This was the *Fox*, under the command of Sir L. F. McClintock, and the voyage was more profuse in the obtaining of evidence as to the fate of the Franklin party than all the rest put together.

McClintock made his way directly to King William's Land, with a definite programme in view. He [Pg 59] and his first lieutenant, Hobson, were each to journey with sledge parties along the coast of that island and examine everything which suggested a chance of learning the fate of the vanished

explorers. Especially were they to seek for any natives and glean from them, by means of presents and barter, any knowledge they might have, or any *relics* which might remain amongst them, of the two ill-fated ships.

The *Fox* was a screw steamer, a fact which very largely contributed to the success of the expedition, as she was able to make steady progress, whereas a sailing vessel would have had to wait for favourable winds and so probably lose a great deal of very valuable time. She sailed from Aberdeen on July 1, 1857, and returned on September 22, 1859, accomplishing, in her two years' absence, an amount of discovery which placed all question of the fate of the *Erebus* and *Terror* and their crews beyond a doubt.

As soon as the *Fox* was made snug in winter quarters, McClintock and Hobson set out over the ice in search of some Eskimo. They were fortunate in discovering a couple of seal hunters, who told them that some distance away there was a larger party, amongst whom was a man with knowledge of the missing explorers. They set out with their two friends, but as night was coming on while yet they had not reached the camp, they decided to stay where they were till the morning. The two Eskimo, for one needle apiece, built a snow hut for them in an hour. All of them [Pg 60] went inside the shelter, which they found very acceptable, and prepared their supper. The food they carried consisted of salt pork and biscuits, but the two Eskimo would not look at it. Their supper consisted of a piece of bear's blubber. When they had consumed it they squatted on their haunches and, with their heads drooped forward on their knees, went off to sleep for the night.

The following day the main camp was reached, and the white men at once realised, by the number of articles of European manufacture in the possession of the Eskimo, that they must have found and looted the abandoned ships. One of the men told them, through the interpreter, that several years before there was a ship in the ice off the coast, but that when the ice melted it had sunk in deep water. He pointed out the direction where the ship had been, and where there had been a lot of drift-wood thrown up on the beach—wood out of which, he explained, they had made their spear handles and tent poles. Other relics were gradually forthcoming, upon the production by the white men of the barter they had with them, and a brisk trade was carried on, knives and needles being exchanged for spoons, forks, and other objects unmistakably from the wrecked ships. In addition to the relics, some dogs were also secured.

The latter purchase afforded them considerable amusement and often excitement before they were entirely masters in the art of dog-team driving. Like everything else worth doing, it has to [Pg 61] be learned, and in his account of his journeyings McClintock quotes one or two instances where experience was his only teacher. He found, for instance, that when a dog team is harnessed up to a sledge, every dog does not pull his hardest, and a suggestion from the whip is advisable. The dog, however, is inclined to resent it, and at once bites his neighbour by way of protest. The neighbour in turn bites his neighbour, who does the same, until the whole team has received the sting arising from the first lash, and every dog is howling and snapping and jumping over each other. The application of the whip handle instead of the whip lash is then necessary, and when at length quiet is restored, the driver has to set to work to unplait the harness, which has been twisted and tied into a terrible tangle by the antics of the team. When, at the expense of a great deal of patience and time, everything is ready for a fresh start, the inexperienced driver is able to estimate the value of cracking the whip over, instead of on, the back of a lazy dog.

Even then, however, it is not all plain sailing. The dogs possess a wisdom of their own, and they never act so well together as when they reach a piece of particularly rough ice over which the sledge does not move easily. Directly they find that they have to lean heavily against the collar to pull the load forward, they, with one accord, turn round, sit down, and look at the driver. If he is [Pg 62] inexperienced, he lays about him with his whip and the dogs fight and tangle the harness; if he knows his animals, he puts his shoulder to the sledge, pushes it forward on to the toes of the team, whereupon each one gets up, hurries out of the way of the threatening sledge-runners, and, together, pull it easily over the rough place.

Another peculiarity of the dogs is their extraordinary appetite for leather. Shark skin the Eskimo consider to be bad for them because of its excessive roughness, but birds' skins, with the feathers on, are greatly relished by the insatiable feeders, and, as has been said, leather is an especial luxury. The dogs are incorrigible thieves and frequently sneak into the tents, or, if on board ship, into the cabins, in search of plunder. They are generally greeted with a kick, but should it be sufficiently energetic to dislodge the kicker's shoe, the dog at once seizes the delicacy and makes for a quiet spot on the ice where he can devour it at his leisure.

The dogs, however, which McClintock was able to obtain from the Eskimo were genuinely useful to him when he and Lieutenant Hobson began their prolonged search, and his only regret was that he could not get more. Later explorers have profited by his experience, for now an expedition is never considered complete that does not carry at least one team.

After leaving the Eskimo encampment, search was continued along the southern coast of King [Pg 63] William's Land, but without very much success. Returning, they again met the same tribe of Eskimo, and discovered that when one of the race speaks he does not necessarily tell all that he knows. During a conversation between the interpreter and one of the young men, the latter made a reference to the ship that came ashore. As the man who had previously mentioned the ship said that it sank in deep water, the young man was asked how it could have come ashore under those circumstances. The other one sank, he said; the one he meant came ashore, where he had seen it.

Further inquiries showed that both the ships had been seen and visited by the Eskimo while they

were yet in the ice. One of them they could not find how to enter, so they made a hole in her side, with the result that when the ice melted she filled and sank. In one of the bunks they found a man lying dead, but no other bodies were right near the ship.

Now that they had been discovered in their attempt to evade the truth, the Eskimo spoke readily enough, giving the exact locality where the ship had come ashore. Thither McClintock and his companions at once proceeded. They found enough evidence in the drift-wood on the beach to show them where the vessel had gone to pieces; but whether it was the *Erebus* or the *Terror*, there was nothing to show. They had now, however, a definite point from whence to commence [Pg 64] their search, and they laid out the probable routes by which the escaping crews would have travelled. Separating into two parties, so as to cover as much ground as possible, they started, Lieutenant Hobson leading.

On May 25, 1859, McClintock, while walking along a sandy ridge from whence the snow had disappeared, noticed something white shining through the sand. He stooped to examine it, thinking it to be a round white stone, but closer inspection showed it to be the back of a skull. Upon the sand being removed, the entire skeleton was found, lying face downwards, with fragments of blue cloth still adhering to its bleached bones. The man had evidently been young, lightly built, and of the average height. Near by were found a small pocket brush and comb, and a pocket-book containing two coins and some scraps of writing. He had evidently fallen forward as he was walking, and never risen. As an old Eskimo woman told Dr. Rae, "they fell down and died as they walked along," overcome with cold, hunger, and sickness.

The explorers were now in the region where all their finds were to be made. Five days later McClintock came upon a boat which he found, from a note attached to it, that Hobson had already examined. It had evidently escaped the notice of the Eskimo, and, until the white men found it, had probably not been touched by human hands from the moment its occupants had [Pg 65] died. It was mounted on a sledge, as though it had been hauled over the ice; but from the fact that its bows pointed towards the spot where the ships had been, it was surmised that the men were dragging it back to the vessels when they were overcome. Inside were two bodies, one lying on its side, under a pile of clothing, towards the stern, and the other in the bows, in such a position as to suggest that the man had crawled forward, had laboriously pulled himself up to look over the gunwale, and had then slipped down and died where he fell. Beside him were two guns, loaded and ready cocked, as though the man had been apprehensive of attack. There were also as many as five watches, several books (mostly with the name of Graham Gore or initials G. G. in them), abundance of clothes and other articles such as knives, pieces of sheet-lead, files, sounding leads and lines, spoons and forks, oars, a sail, and two chronometers, but of food only some tea and chocolate.

The story mutely told by these relics was only too plain. Weary with hauling it, the majority of the men had left the boat in order to get back to the ships and obtain a fresh supply of provisions, leaving two, who were too weak to struggle on, in the boat, as comfortable as they could be made until some of the others could get back to help them. Then the days had passed until the store of provisions had been consumed and the two sufferers had grown weary with waiting, so weary that one had slept and died under his wraps, and the other, with his remaining vestige of [Pg 66] strength, had crawled forward to peep out once more for the help that was so long in coming. But only ice had met his gaze, and, sinking down, he had also passed into that overwhelming sleep, and had lain undisturbed for twelve years under the covering of the Arctic snows.

Close search was made in the vicinity of the boat for the remains of any other of the lost explorers, but nothing was discovered except drift-wood. The spot where the boat was found was about fifty miles from Point Victory, sixty-five from the place where the ship had gone ashore, and seventy from the skeleton that McClintock had discovered on the ridge.

A few days' march farther on, a cairn was noticed upon the brow of a point near Cape Victoria. On ascending to it, McClintock found another note from Hobson, stating that he had already examined it and recovered from it the record which the crews had deposited there upon the desertion of the ships, and which is given in the account of the Franklin voyages. This was the final triumph of the search, for it conclusively proved that Sir John had been dead before the ships were abandoned, that he, and not McClure, was the real discoverer of the North-West Passage, and that the expedition had ended in a disaster as pitiful as the commencement had been brilliant. Round the cairn were strewn innumerable relics, showing that the three days which had elapsed from the time of their leaving the ships had been sufficient to further decrease [Pg 67] the strength and vitality of the scurvy-stricken unfortunates.

No other discovery of moment was made after the unearthing of the vital record, but Lieutenant Hobson had some experience of what the Franklin explorers must have suffered. He had abundance of food with him, and that the best and most nutritious, but he developed scurvy on his journey, and when he reached the *Fox* he could not walk without assistance. No wonder, then, that Franklin's men, starving as well as sick, should have died by the way.

The return of the *Fox* in September 1859 effectually set at rest all doubts as to the fate of the *Erebus* and *Terror*, and no more search expeditions were sent out. But in 1879 Lieutenant Schwatka, of the United States Navy, made an overland journey to that part of King William's Land where the crews had perished. He found many more skeletons, doubtless of members of the ill-fated expedition, and wherever he found one lying above ground he buried it with proper ceremony, except in a single instance.

This was in the case of an open grave of stones in which the remains of a skeleton, with some blue cloth adhering to it and some coarse canvas around it, was lying. Near the remains he found a silver medal bearing the words, "Awarded to John Irving, Midsummer, 1830, Second Mathematical Prize."

The presence of the medal identified the remains as being those of Lieutenant Irving of the *Terror*. As this was the only instance where identification was possible, Lieutenant Schwatka [Pg 68] carefully and reverently gathered them together and carried them to New York, from whence they were forwarded to Edinburgh, Irving's native town. There they were accorded a public funeral on January 7, 1881.

CHAPTER IV
THE VOYAGE OF THE *POLARIS*

[Pg 69]

Death of Captain Hall—Crew determine to Return—Are Frozen in—A Party take to the Ice and are Cast Away—They build themselves Snow Huts—They find some Seals—An Adventure with Bears—The Perils of the Spring—They sight the *Tigress* and are Saved —The Ship-Party's Story and Rescue.

The Government of the United States, in June 1871, despatched the *Polaris* to explore and survey the passage between Grinnel Land and Greenland, and also, if possible, to push on to the Pole.

The *Polaris*, under the command of Captain Hall, sailed from New York on June 29, 1871, with a crew of thirty-three, and provisioned for some years. She succeeded in passing through Smith's Sound and Robeson Channel, and on August 31 she had reached as high a latitude as 82° 11' N. Returning to the southward, she went into winter quarters; but on November 8 her captain was struck down with apoplexy. Upon his death all idea of going further to the North was abandoned, and, as soon as the spring of 1872 commenced, preparations were made to return to New York.

The ice was particularly heavy, however, and very slow progress was made when, by August, the *Polaris* became entangled with some big floes which checked her in every direction. On August [Pg 70] 14, when off the entrance of Kennedy Channel, in latitude 80°, the ice closed round her and fixed her so firmly that every effort made by the crew to release her was without avail. A series of floes had closed one upon the other, and had so compressed themselves together, that all hope of extricating the *Polaris* until the ice itself broke up was reluctantly abandoned. The pack in which she was involved continued to slowly drift to the South until, two months after her capture, the ship had drifted in the ice to 78° 28' N. At this point a violent gale occurred, which resulted in the series of adventures for her crew that has made the voyage of the *Polaris* so notable.

As the gale increased in intensity, the huge field of heavy ice in which the vessel was imprisoned began to heave and grind in an alarming manner. The masses joined together by the force of earlier collisions broke asunder under the strain of the wind, but only to close in again with terrific force and crashing. Every time that separated portions of the pack came together with a crash, the ice around the vessel creaked and moved, and the *Polaris* herself strained in every timber under the trial.

A sudden parting asunder of the pack where she was encased liberated her for the moment. Freed from the grip of the ice, the force of the wind was more evident, and she heeled over to the gale as it caught her in the temporarily open water. Before she could right herself, the ice closed [Pg 71] in again upon her sides. The rending and crashing which followed the "nip" convinced all on board that the vessel was too crushed ever to float again, and, while the floe held together and she was kept from foundering, the crew set about putting stores, tents, clothing, arms, and anything else they could lay hands on, over the side on to the ice. They feared that with the next split the vessel would be in the water again, and there was no doubt in any one's mind but that she would then sink like a stone. No one knew how long it might be before that split came, and in the meantime every one worked at the only means of saving their lives. Nineteen of the ship's company scrambled out on to the pack, and, as their comrades passed out the various stores and articles they were able to seize, those on the ice stacked them, as well as they could, on a massive hummock.

Through the wind and the cold they worked, neither pausing for rest nor refreshment. All around them the ice was heaving and grinding, and over them the cold northerly gale was blowing and driving great clouds of snow; but they worked on, knowing only too well that in every barrel of food they rolled into security was contained a week of life for them. The driving snow made it more and more difficult to see, until the air was almost dark. With fearful force the wind howled across the icy expanse, and those on the pack crouched for some shelter behind the stores they [Pg 72] had piled up by the hummock, waiting till the gale should have exhausted its fury.

The faint sound of a cry came to them from the direction of the ship and they peered out through the gloom. Then a cry of despair broke from their lips—they forgot the force of the wind and the cold of the driving snow as they sprang from behind their shelter. The ice had parted again, and, down the long lane of open water which had been formed, the hull of the ship loomed as it swung away into the darkness.

Anxiously the castaways watched for the coming together again of the divided packs, in the hope that the *Polaris* would again be caught and held. Those who remained on board were equally anxious, for they knew the vessel must be leaking terribly, and to be left much longer in the open water meant that she would founder and they be drowned. A man ran to the rudder and tried to bring her round to the ice which glimmered through the snow-storm, but the rudder was damaged too much for steering and the ship drifted on. Soon it was obscured from those on the pack, and the truth of their position dawned on them. Whether the ship had foundered or not they did not know, but this was clear: they were adrift on an ice-pack which might at any moment split asunder and precipitate them into the freezing water, or, if it held together, carry them till they died of cold and starvation.

Either alternative was sufficiently gloomy to depress the spirits of the bravest; as the nineteen [Pg 73] cowered behind their stack of provisions for shelter from the keen snow-filled wind, into the mind of each there came a grim determination to fight while there was an ounce of food in the casks or a vestige of ice to float them. In the morning, when the storm had abated and the air was clear, they emerged from their shelter and looked about for a sign of the vessel. Some of them clambered up on to the top of the highest hummocks so as to command a wider field of vision, but they saw no more than those who remained below. All around them was ice, piled in heaps, or stretching out in flat expanses; but always ice, as far as the eye could reach, and nowhere a vestige or a sign of the *Polaris*.

They gathered together round the heap of stores and looked at one another in silence, each one reading the other's thoughts and always finding them the same as his own. The ship had probably gone to the bottom, with all on board, as soon as she broke away from the ice. The packs had closed again over the spot where she had disappeared, so that there was no chance of any spars or timber floating to the surface and confirming their suspicions. Everything was under the ice, everything except the scanty supply of provisions that had been put overboard.

At length one man spoke. It was no use mincing matters, he told his comrades. They would do well to realise the position they were in, and, looking at it from the worst side, make the best of it [Pg 74] and fight to the end. The vessel had gone, and all they had to keep them from starvation and death was the heap of stores and their own energy. There was no timber to build a raft, so that they could float if the ice broke up; there was no wood to waste on a fire. But as they had to keep afloat and warm if they were going to escape, he considered that first of all they should remove their stores to the thickest, heaviest ice they could find, and then set to work to build snow huts for shelter. Winter was coming on with its long spell of darkness, and there was no time to waste. It was every one's business to help one another and to do the best they could, working together and sharing whatever came, whether it was short rations or plenty.

The sentiments appealed to all the men, and they formed themselves into parties to carry out the scheme. Fortunately they had just passed one winter in the Arctic regions and knew, therefore, what was in front of them, and also how to carry out the building of snow huts and the other necessary makeshifts. A massive hummock, which apparently was too strong to be crushed, and solid enough to last through several summers without melting, was selected as the site of the encampment. The snow which had fallen during the gale was not quite hard enough for building huts at the moment, so while some of the party were overhauling the stores and arranging to move them to the hummock, the others were clearing away the snow from the site of the camp [Pg 75] and banking it up all round as a break-wind.

By the time the stores were placed in the enclosure, canvas shelters were erected for a temporary covering, pending the time when the snow became hard enough to cut for building blocks. It is only when the snow has become compressed by its own weight and frozen nearly solid by the cold that it can be cut into slabs or blocks for a hut. When it has become hard enough, the blocks are cut and the building commences. First a circle is laid, with a small space vacant where the doorway is to be. On either side of this opening the blocks are laid so as to form the plan of a porch, one side of which, in the present instance, was continued at right angles so as turn the entrance passage towards the stack of provisions and thus shelter the doorway from the wind. As soon as the ground plan of the hut was laid, the surface of the blocks was moistened and other blocks laid upon them, and so on until the walls rose some five feet, the moisture making the blocks freeze hard to one another. The layers were now gradually lapped over the interior until a dome roof was formed. Both inside and outside were then moistened and smoothed, and the cold air, freezing the moisture, glazed the entire structure with a covering of ice.

All the clothing, bedding, and weapons were taken inside. A lamp was constructed out of an empty preserved meat tin; it was filled with fat, and, with a piece of twisted tow for a wick, it lit up the interior of the hut and afforded some warmth as well. Heavy canvas curtains were [Pg 76] suspended across the opening out of the hut at the inner wall, at the bend in the passage, and at the outer opening. Such of the packages of stores as were suitable were also brought into the hut, and upon them the blankets and furs were laid so as to make the sleeping places as comfortable as possible. The quarters were thus as good as the men could make them, but one anxiety still remained. The lamp would have to be kept going all the twenty-four hours, and especially during the long Arctic night; but the supply of fat was limited.

A hunting party was organised to search the pack for seals or walrus or any animal from which blubber could be obtained. Here again the experience of the previous winter and its hunting exploits served them. A small opening in the pack was discovered a mile or so from the camp, and

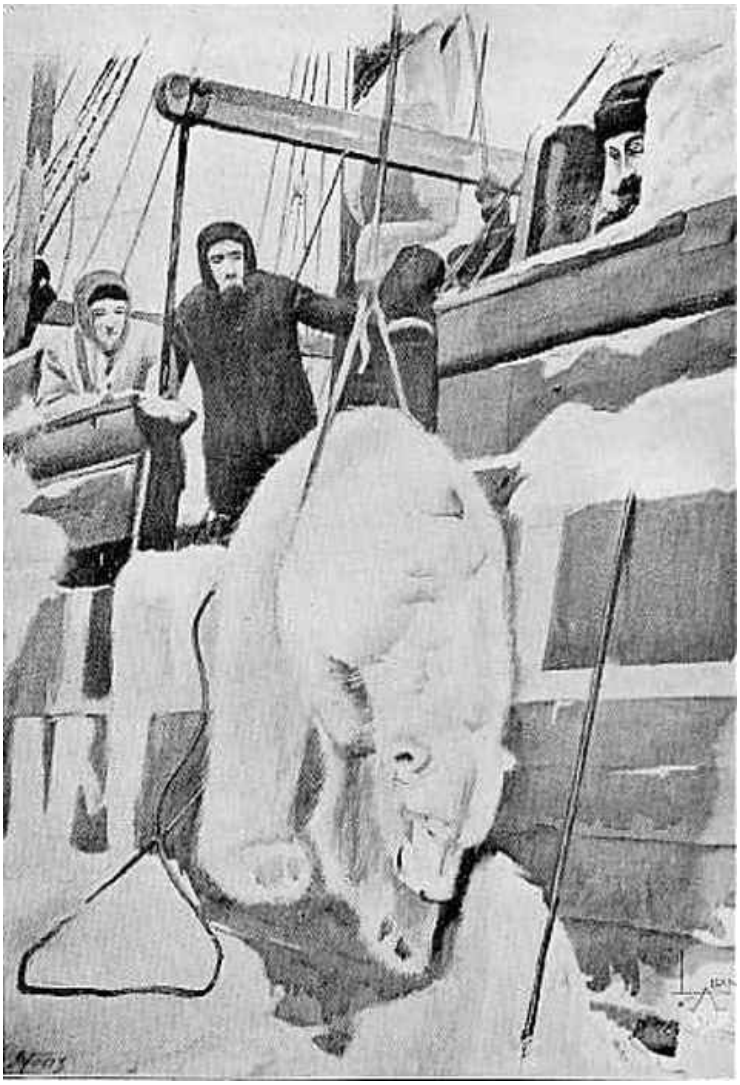
on the ice around the water three seals were resting, having evidently been caught in the ice when it closed. With great care the hunters crept over the ice towards the animals, whose sacrifice meant so much to the castaways. Only two had rifles, the others carrying harpoons they had made from the tent-poles, and which were anything but reliable weapons. Steady aim was taken by the two men who had the rifles at the two larger of the seals. Firing together, one seal fell dead; the one which was not aimed at plunged into the water, and the other, badly wounded, hobbled to the edge of the ice. In another moment he would have been over and probably have [Pg 77] sunk to the bottom, had not one of the men flung away his harpoon, and, springing forward, managed to seize the hind flippers of the wounded creature. His comrades rushed to his assistance and dragged both him and the seal back from the opening on to the ice, where the latter was quickly despatched.

They were harnessing themselves to their victims in order to drag them over to the camp, when a loud snort from the opening caused them to start round just in time to see the third seal disappearing under the water. At once they understood the situation. The opening was the only one for miles, and the seal was compelled to come to the surface there to breathe, as he could not reach the top anywhere else for the ice. It was at once decided to wait for him, but as, if he were shot while in the water, he would inevitably sink to the bottom and be lost to them, they determined to lay a trap for him. The seals already killed were placed in natural attitudes near the water, and the men hastily retired to sheltering hummocks, to wait the return. The men with the rifles were both to fire upon the seal as soon as he emerged on to the ice, for he was too valuable to be lost. They had not waited very long before he reappeared and, raising his head high out of the water, looked around. Seeing nothing but the two seals on the ice, he swam leisurely round and round the opening before scrambling up on to the ice. As he reached it and [Pg 78] moved towards his two companions, the men, who had been carefully aiming at him, fired and killed him.

With the three seals, the party returned to the camp in high spirits, their arrival being the signal for general rejoicing, for not only would the blubber of the seals keep the lamp supplied with oil, but their skins were very welcome additions to the stock of warm coverings, and the meat was an invaluable addition to the larder.

Really it was more, but of that they were not aware until two days later, when one of the men was awakened by the short barking roar of a bear. He quickly roused his companions and they made their way out of the hut with what weapons they possessed.

The flesh of the seals had been suspended on a line between two poles near the other provisions so as to protect it from any chance visit by wolves or bears. As the first man peered out from the hut opening, he saw, in the dim twilight, two bears standing underneath the line of meat, sniffing up at it and growling. They had, it was afterwards learned, picked up the trail where the dead seals had been dragged from the opening in the ice, and had followed it to the camp.



AN ADDITION TO THE EXPLORERS' SUPPLY OF PROVISIONS.

The man whispered back to his companions what he saw, and another man, armed with a rifle, crept to his side. Aiming together behind the shoulder of the larger of the bears, they fired [Pg 79] simultaneously and brought their quarry down. Immediately the other bear turned towards the opening and, with snarling teeth, advanced. A third rifle was fired point-blank at its head, but the bullet failed to penetrate the massive skull, though it made the beast change its direction. As it turned away the men realised what its escape would mean to them. There was a rush after it, the men loading and firing as quickly as they could load, so as to secure it before it disappeared in the dim grey twilight. It fell wounded, and was despatched by means of the impromptu spears.

This adventure not only made a notable break in the monotony of the life on the pack, but gave the men a subject for conversation during the long weary period of darkness, as well as increasing their store of fat, fresh meat, and warm covering. No further animals were seen or heard, although every one was constantly on the alert, and the opening where the seals were killed was visited daily until it froze over. Then the last vestige of twilight vanished and darkness settled down upon the ice.

For eighty-three days the sun was absent, and during that time the cold was intense. The lamp was the only means of artificial heat they possessed, and even of that they had to be careful, for the supply of fat was not inexhaustible, and no one knew when it could be replenished. In the coldest weather the men huddled together under their blankets and furs, anxious and weary. They had no means of finding out in what direction they were moving, for the constant creaking [Pg 80] of the floe led them to believe that they were drifting somewhere. Whether it was to the North or to the South they could not tell, and yet upon the direction in which they were moving their salvation depended.

Never, perhaps, was the return of the sun more welcomed than by the desolate castaways on the floe. But its appearance and the commencement of spring was not entirely an unmixed blessing. The rising temperature naturally caused the ice to break up, and as the floe upon which they were marooned gradually decreased in size, fresh anxiety was caused to them by the possible danger of their haven being broken up. As the days passed, they saw their food supply growing smaller and smaller, until starvation stared them in the face, and hope was almost dead. April came, and with it all the privation and suffering consequent upon insufficient food and wearying, helpless, and almost hopeless, inactivity. The last day of the month arrived and found them with the last morsel of food consumed. A man clambered to the summit of the hummock in the hopes of seeing a seal somewhere on the ice. His comrades thought that he had lost his senses when he shouted wildly and, clambering down, ran towards them, dancing and shouting.

Over the top of the hummock he had caught sight of a ship, and the excitement caused by his news was soon eclipsed as the castaways saw the signals they made answered from the vessel. [Pg 81] Boats put off for them and took them on board the ship, which was the *Tigress*, a sealer from Labrador.

They found that in the 196 days they had spent on the floe they had drifted over 1500 miles from the latitude in which the *Polaris* was beset on October 12. For the time they believed they were the only survivors of the expedition, but in this they were wrong. The remainder of the party also escaped, though without undergoing quite the same hardships as themselves.

When the *Polaris* broke away from the ice, she did not sink, but drifted rapidly before the gale through the open channel. Captain Budington, who had assumed command when Captain Hall died, and the twelve men who remained on board, managed to keep the disabled vessel afloat, but they could do no more until she again became involved in the ice. By that time all hopes of returning to the place where the other men were on the ice was abandoned, and, as the water was fairly open, the efforts of the crew were mainly directed to warping the ship towards the coast. By good fortune she managed to escape from the crushing packs, and, with tireless effort and great care, she was at length brought within sight of land. Then she was caught in the ice along the shore and so severely nipped that her ruin was complete. She, however, did not sink, and her crew were able to reach the land.

Selecting a site for an encampment, they removed thither enough timber from the broken-up [Pg 82] vessel to construct a house, to which they also removed enough stores to last them. When these necessaries were secured, they brought more timber ashore, and, during the long winter night, they employed themselves in constructing a couple of boats. It was a laborious task, and but slow progress was made until daylight returned. Then they were able to carry on the work faster; but it was the middle of May before they had them finished and seaworthy.

As soon as the ice began to break up, they launched the boats, which were fully provisioned from the wreck, and on June 3 they sailed away to the South. Three weeks later they sighted a whaler, the *Ravenscraig*, who took them aboard, and within a few months of their comrades, whom they thought had all perished, landing in America from the *Tigress*, the boat party also landed, having saved, in addition to themselves, all the records of the surveys and observations made by the expedition. These were of great geographical value, making known much of the neighbourhood of the straits between Greenland and Grant's Land. The expedition, although attaining to a high latitude, did not succeed in reaching the Pole, but their adventures made a fascinating chapter in the history of Polar research.

CHAPTER V [Pg 83]
THE *ALERT* AND *DISCOVERY*

Sir George Nares appointed to the *Alert* and *Discovery*—Overtaking a Season—Red Snow—The Greenland Mosquito—Peculiarities of Eskimo Dogs—And Dog Whips—Dangers of Kayaks—Advantages of Steam for Polar Regions—An Unpleasant Experience—A Huge Walrus—Arctic Scenery—A Big "Bag"—The Ships part Company—The *Alert* reaches the Polar Sea—Winter Quarters—The North Pole attempted—Adventures and Sufferings of the Party—Lieutenant Parr's Heroism—Deliverance—The Greenland Attempt—Scurvy and Snow—Repulse Bay—In Pitiable Plight—Lieutenant Rawson to the Rescue.

"Her Majesty's Government, having determined that an expedition of Arctic exploration and discovery should be undertaken, My Lords Commissioners of the Admiralty have been pleased to select you for the command of the said expedition, the scope and primary object of which should be to attain the highest northern latitude and, if possible, to reach the North Pole."

Such was the opening sentence of the official instructions sent to Sir George Nares to take command of the *Alert* and *Discovery*, two steam vessels, which constituted the first expedition the British Government had sent to the Arctic regions since the search parties for Sir John Franklin. It was confidently expected that the introduction of the screw steamer into Arctic [Pg 84] navigation would result in startling achievements, and those expectations were fully justified.

The two ships, with H.M.S. *Valorous* in consort with provisions, &c., on board, left Portsmouth on May 29, 1875. They were home again by November 2, 1876, and during the intervening eighteen months they had reached the most northerly point attained by man up to that period, and only since exceeded, on the sea, by the *Fram*.

No greater contrast can be given of the enormous strides which had been made in navigation during the thirty years which had elapsed since Franklin sailed away on his last and fatal voyage, than the fact that whereas after six weeks' journeying Franklin had barely reached the region of drift ice, in six weeks from the date of leaving Portsmouth the *Alert* and *Discovery* were almost in the region of perpetual ice. And all owing to the application of steam to ocean travelling.

The route laid down for the expedition was along the western coast of Greenland and as far through Robeson Channel, which divides Grinnel Land from Greenland, as it was possible to get.

Disko Bay, half-way up the Greenland coast, was the spot where the *Alert* and *Discovery* were to part company with the *Valorous*. They entered the Bay on July 4, having had, on the voyage to the North, the peculiar experience of chasing and overtaking a season. When they left Portsmouth at the end of May, summer was well in; but when they arrived at Disko Bay they found that the mild [Pg 85] weather which forms the spring had not yet set in sufficiently to melt all the winter's snows. So that they had travelled quicker than the summer, having started after it had begun in England, and arrived in Greenland before it was due.

The early spring flowers were just commencing to bloom on the slopes around Disko, wherever the snow had melted, while higher up on the hills, where the winter's snow still lay, the explorers had an opportunity of looking upon that curious phenomenon, red snow. A minute animalcule (*Protococcus nivalis*) generates in the frozen covering of the earth, and increases so rapidly and in such vast numbers that it gives to its cold white habitat the hue of its own microscopic body. Another minute creature also breeds in enormous numbers in these bleak regions, the mosquito, which one usually associates with dense tropical jungles and fever-breeding swamps. All along the Greenland coast, wherever there is a pool of fresh water which thaws from the ice-grip, the larvæ of the mosquito appear in swarms in the spring, and, very shortly after, the full-fledged insect emerges in the utmost vigour of irritating stinging life. As the time is short between the period when the ice melts and when the water freezes again, the Greenland mosquito has to be active to work out his life mission before he is frozen off, and the skin of all visitors to his locality [Pg 86] gives ample evidence how well he utilises his opportunities.

In addition to taking on board the surplus stores from the *Valorous*, the two Arctic ships also took on board teams of dogs for sledging purposes. Fifty-five in all were shipped, their quarters being situated on the main deck, where they were necessarily cramped for room, and, what was worse from their point of view, were unable to get at one another's throats owing to their being chained to bolts. Consequently they kept up a constant chorus of snarls and yaps, varied now and again with a howl as one or another received a remonstrating kick from a sailor.

This interminable uproar was explained by the Eskimo dog driver, who was also taken on board, as being due to the fact that most of the dogs were strangers to one another, and no one was as yet the properly constituted king.

When Captain McClintock purchased a team of dogs from the Eskimo of King William's Land, he had a good deal to learn about their peculiarities; but the people on the *Alert* and the *Discovery*, having a great many more dogs than he was able to obtain, had also a great deal more to learn about them. Sir George Nares, in his account of the expedition, gives some particulars which were furnished by his Eskimo dog driver, and these show that the sledge dog is quite as wise as one might expect from Captain McClintock's experiences.

In every team of dogs, one is the king. He holds that position by prowess only, and has to fight [Pg 87] and thrash every other dog in the team before he can assume the leadership. When he has once assumed it, he has to keep it by the same means; for revolutions may at any moment occur, through some younger dog aspiring to the ruling position. But while a dog has the position of authority, he exercises his rights with decision, and the remainder of the team cluster round him and support him in emergencies, or lie at his feet in times of leisure. The only one who is allowed to snarl at him without at once being bitten is the queen. She is among her sex what the king is among his; for though she depends more upon him for her prominent position than to her own fighting qualities, she maintains it, when once obtained, by a free use of her jaws upon encroachers.

Consequently, when a number of teams were brought together on the decks of the vessels, all strangers to one another, there was a tremendous amount of fighting in prospect before peace could be granted. Firstly, the kings of the various teams were anxious to tussle for the supremacy; and with the prospect of some of them getting badly mauled, there were several inferiors in each team ready to do battle with their injured monarch, and, when he was disposed of, with one another, for the leadership. But their new masters, instead of letting them all loose to settle their various degrees of authority in their own hereditary fashion, tied them up where they [Pg 88] could see and hear one another without exchanging a bite. The kings, naturally warlike and ferocious, could only snap at their inferiors as they bayed in their rage, and the inferiors could only bay in their pain, and so between them the ship's company were kept awake by night and annoyed by day.

When at length opportunity occurred for liberating the dogs and giving them some exercise over the ice, great care had to be taken so as to prevent a wholesale mêlée. Each team, as they were freed from their deck chains, were led on to the ice and made fast to a sledge, two men being in charge of each sledge for the purpose of learning how to drive. And a highly exciting time they had of it, for not only did every dog want to start in its own direction as soon as they were harnessed, but every team wanted to attack every other team directly they appeared.

Nor were the troubles of the drivers limited to the dogs. The whip which is used for sledge teams consists of a very short handle and a very long lash. In the hands of an expert it is a most effective weapon, being capable of producing a resounding crack or a stinging blow wherever the wielder desires. But in the hands of a novice it is, like the Australian stock-whip, prone to do everything that the wielder does not wish. The amateur driver of a team, growing impatient as his dogs set off at full speed in various directions, and, besides tangling the harness, upset the [Pg 89] sledge and themselves and very nearly himself as well, lashed out viciously at the worst offender; but the lash, instead of bringing the creature to his senses, curled back and hit the striker across

the face, or twined round the legs of his companion, with disastrous results. Meanwhile the Eskimo driver was going from one group to another, trying to explain the mysteries of the art, much to the amusement of the onlookers and the indignation of the inexperienced amateurs.

During the wait at Disko, another form of Arctic travelling was practised by the officers of the expedition. This was the use of the Eskimo kayak.

The kayak is a long narrow canoe, entirely covered in with a waterproof covering. The voyager sits in the middle in a small round hole, the covering lapping over the edges and being fastened round the waist. The kayak is thus made as buoyant as a life-belt, whether floating on an even keel or upside down. By reason of their build, they are peculiarly "cranky" craft, turning over at the least provocation, and so require extremely careful handling, unless one is an adept at swimming and diving. The experience of one of the officers made this clear. He had securely strapped himself in, when, by a false stroke of the paddle, he overturned the kayak. He could not get it back again and was unable to loosen the cover; there was only one way of escape, and that possible alone to a man familiar with being under water. Loosening his clothes, he wriggled out [Pg 90] of them and came to the surface just in time to avoid drowning.

Having taken on board all the stores that the *Valorous* carried, as well as a full supply of coal, the *Alert* and the *Discovery* started in company for the North. The advantages of steam navigation were made even more apparent as they proceeded, for the ships were able to steam through ice-encumbered water which would have been quite impassable for sailing vessels. Depending so much upon the wind, a sailing vessel is only able to make headway amongst heavy drifting floes by means of long hawsers, run out and made fast to a mass of ice and then slowly hauled in at the capstan. Steamers, on the other hand, experience no difficulty in forcing their way past and between the lesser floes, and Sir George Nares, who had had a great deal of experience of sailing vessels in the ice regions, was frequently astounded at the ease with which the two steamers rammed their way, clearing from out of their course lumps of ice which would have been difficult obstacles to a sailing ship.

Those on board, however, were not to escape without some experience of the peculiarities of ice movements. The vessels were going to make fast for the night, and a boat's crew was sent from the *Alert* to carry an anchor to a large, heavy mass not far distant. On near approach it was seen that the lump was very rotten, and, as no hold for the anchor could be found near the water-line, [Pg 91] one of the men volunteered to clamber up to the top and, with an ice chisel, make a hold for it. He clambered on to the slippery, treacherous mass, and, after a great deal of very careful exertion, succeeded in reaching a point high enough for his purpose. He began lustily to drive in the chisel, but so rotten was the ice, that instead of merely chipping out a crevice, he cracked the top of the lump. Another blow, and, to his intense amazement, a huge mass in front of him slid away. Gliding down the side, fortunately away from the boat, it splashed into the sea. But the removal of so much from the top of the berg upset its balance, with the result that it swayed from one side to the other as it recovered its equilibrium. The unfortunate sailor, with nothing to cling to, had to scramble up and over the summit as the berg dipped down; but no sooner was he over the top than the berg swung the other way, and he had to scramble back again. There was no means of escape until the berg settled down once more, and in the meantime his companions in the boat and on the steamer were shouting with laughter at the antics of what they called their squirrel on the iceberg.

While he was in his lofty if unsteady position, however, he noticed on a floe not far distant three walrus, and as soon as he returned to the ship and reported his discovery, a boat with a harpoon and two rifles was despatched. The three animals lay contentedly enough on the ice, paying [Pg 92] scarcely any heed to the advancing boat, with the result that all were hit. The two that were shot slid off into the water and sank, but the one that was harpooned could not escape. He was an immense creature, measuring over twelve feet in length and eleven feet round the thickest part; his tusks were over eighteen inches long, and, when cut up, he yielded five casks of meat, weighing 1250 lbs.

As the two vessels advanced farther to the North they found that the character of the ice was very different from that met with in the neighbourhood of Baffin's Bay and Lancaster Sound. It was more massive and heavy, a berg they passed towering nearly 300 feet above the water-line, and floes frequently occurring some miles in length and standing 50 feet out of the water. The possibility of being caught between such masses and "nipped" was a constant danger, for no vessel could possibly withstand the tremendous pressure exerted by two floes of that size colliding. A constant look-out had to be maintained from the crow's-nest for any sign ahead of the floes closing in, and by careful navigation anything like a severe "nip" was avoided.

By August 24 they had made such excellent progress as to be nearly at the end of the hitherto explored channel. A southerly wind was helping them along, but about four in the afternoon it began to die away. They were then in Bessel Bay, and in order to see how the ice was ahead, Sir George Nares decided to land and climb to the top of Cape Morton, which is some 2000 feet in [Pg 93] height. From the summit a magnificent view was obtained, of which the following description is given by Sir George Nares in his account of the expedition:—

"It was a beautiful morning, with scarcely a cloud in the sky. The cold, sharp wind which had benumbed us at the sea-level was local, for, on the summit of the cape, it was perfectly calm. Sixty miles distant in the south-west were the Victoria and Albert mountains of Grinnel Land, fronted by Hans Island showing clear of Cape Bryan, which had Hannah Island nestling at its base. Farther north was an elevated spur from the main range which, rising between Archer

Fjord and Kennedy Channel, formed Daly Promontory. Fronting these mountains, and directly separated from them by an extensive valley extending to the northward from Carl Ritter Bay, was the black buttress-shaped cliff forming Cape Back, the southern extremity of the nearly straight running line of flat-topped coast hills extending twenty miles to Cape Defosse. From that point the coast line became more hilly, and, joining the Daly mountains, extended to Cape Lieber, a bluff headland, with Cape Baird, a low, flat point, jutting out beyond it. Still farther north were the lofty mountains of Grant's Land with steep cliffs about Cape Union, though seventy miles distant distinctly visible, forming the western extremity of Robeson Channel. Nearly due north a slight break in the continuity of the land showed where Robeson Channel opened into the Polar [Pg 94] Sea. On the eastern side of the strait, at a distance of forty miles, was Cape Lupton, the notable landmark denominated Polaris Promontory; then came Polaris Bay with the low plains leading to Newman Bay. At my feet lay Cape Tyson and Cape Mary Cleverly on the north shore of Petermann Fjord, rising to an elevation of 1500 feet."

In this district, picturesque and beautiful as portrayed by the explorer's description, the *Discovery* wintered, while the *Alert* went on farther North. The spot where the *Discovery* was left, and which was named Discovery Bay, was a large, well-protected inlet inside an island, the outer point of which formed Cape Bellot. In the summer it was sparsely covered with loose ice, but in the winter, sea, hills, cape, and plains were all covered in the one white garb. As the two vessels entered the bay early on the morning of August 25, what at first were taken to be nine boulders were observed on the shore; but as the vessels swung to their anchors, the boulders were observed to move away. At once the cry of "musk oxen" was raised, and boats were hastily lowered, filled with sportsmen keen for the chase. The oxen, disturbed by the noise, made for the higher ground, where they were followed by the enthusiastic shooting party until every one of the nine was brought to the ground.

The following day, August 26, the ships parted company, the *Alert* taking with her an officer and [Pg 95] a sledge team of men from the *Discovery*, with the idea of sending them back overland when winter quarters were selected, an idea which had to be abandoned by reason of the impassable nature of the country. On the last day of the month the *Alert* met a particularly heavy floe, the ice forming it being of the massive character which denoted that its origin was the Polar Sea. Once the grinding mass of hummocks, rising higher than the vessel's decks, threatened to catch her. There would have been no hope of escape if they had, and only by persistently ramming her way through some of the looser ice did she escape in towards the shore. Next day a strong gale sprang up from the south-west, and the *Alert* went along at ten miles an hour in an open channel between the land and the heavy pack which was drifting about three miles out. By midday they reached latitude 82° 24' N., and the flags were run up to the mastheads amid general rejoicing, for it was the farthest point North to which a ship had yet sailed.

With the channel showing clear ahead of them and the spanking breeze astern, expectation was high on board that they would be able to sail right up to latitude 84°, but within an hour their hopes were suddenly and thoroughly checked. On hauling to the westward they rounded a promontory and found that the land trended away to the west. The wind veered round to the north-west and drove the ice in upon the channel, which gradually became narrower until, when [Pg 96] off Cape Sheridan, the main pack was observed to be touching the grounded ice and effectually barring all further progress. The *Alert* was run close up to the end of the channel, and then, when it was certain that there was no chance of getting through the barrier, she was anchored to a floe which rested aground off the cape. The next day, as the heavy ice of the pack was grinding against the stranded floe, and an opening just large enough for the vessel to get in was observed in the floe, she was warped into the basin.

She was barely inside when a solid hummock crushed against the opening, forming a great barrier between the vessel and the outer moving pack. Had it struck there a few minutes earlier the vessel would have been severely injured by the "nip," but as it was the hummock formed an admirable shelter from the pressure of the pack. This was often so severe that masses over 30,000 tons in weight were broken off and forced up the inclined shore, rising twelve and fourteen feet higher out of the water as they crunched along the ground.

On September 4 new ice formed on the water in which the ship was floating, and from observations taken from high land inshore all doubt was removed as to where they were. They had navigated to the end of Robeson Channel and were now in the Polar Sea. No land could be seen to the north; nothing but a vast wilderness of huge masses of Polar ice, most of which had [Pg 97] evidently been frozen for years. At midnight on the same day they saw the last of the sun as it sank below the northern horizon.

Winter was now upon them, and they set to work to make their quarters as comfortable as possible. Snow came down heavily for some days, but not for a week or so was it hard enough to cut into the blocks suitable for building snow houses. When these were built, stores were removed to them and observatories fitted up for recording the various conditions of the atmosphere. On September 14 a severe gale sprang up, which caused the ice to move so much that the thin new ice in the basin was broken up and a boat's crew were drifted away on to a floe-berg 200 yards from the ship, from whence they were only rescued after great difficulty and in a half-frozen condition.

Some days subsequently, while a sledge party was on shore, one man was badly frost-bitten. He did not know it until some time after, but he had tried to thaw his frozen foot-wraps in his sleeping-bag instead of first removing them. The loss of feeling and then of use in his legs

crippled him, and when he was brought on board it was seen what was wrong. This is one of the several evils men have to carefully guard against in the excessive cold. So long as they experience the stinging sensation of cold, they are free from a frost-bite; but a man may have his face bitten and not realise it until he is told that he has turned dead white. Circulation has then been arrested, and immediate steps have to be taken to bring it back, or the flesh becomes dead. [Pg 98]

The dogs also began to suffer from a disease which sent them into fits, and which puzzled the Eskimo driver and the doctors. Some of them wandered away over the ice and others died, until only fifteen remained out of thirty, and many of those were thin and weakly. Then, as the cold increased, ice formed in the chimneys, and damp settled on the beams and walls between decks every time the cold air was admitted, so that it had to be constantly sponged up, while the officers had to spread waterproof coverings over their beds to protect themselves from it when they slept.

On November 8 it was so dark at midday that a newspaper could not be read, nor could a man be distinguished a dozen yards away. For eighty-seven days more the sun would be absent, but the moon visited the dark, cold skies, appearing for ten days without setting, and then going out of sight for thirteen. On November 13 the cold was so intense that the mercury froze in the thermometer.

But if it was dark and cold outside, the ship's company made themselves comfortable. A school was started, a theatre was opened—the Royal Arctic—and every Thursday they had popular concerts. Exercise was daily taken and the general health was excellent, only one man being on the sick-list, and he from a constitutional cause. The men were warmly clad when "between decks," as the temperature there was never what one might term hot; but before going outside they had to wrap themselves up in a variety of thick heavy fur garments, for there was often a difference of nearly one hundred degrees to be experienced. [Pg 99]

The long stretch of winter's darkness was varied by the appearance, from time to time, of the aurora. This was the phenomenon which so greatly puzzled, and not infrequently terrified, the early explorers. Assuming a variety of forms, sometimes like the fringe of a vast curtain hanging in the sky, at others appearing as bands and streaks of light, waving and flickering over the heavens, but always with this peculiarity, that however bright they appeared, no light was given to the surrounding atmosphere, they were a source of constant interest to the men.

And so the winter passed, not entirely without its pleasures, in spite of the prolonged darkness. With the beginning of spring active preparations were made for the sledging trips, which were to carry out the work of surveying the surrounding land and penetrating farther to the North than it was possible for the vessels to go. The great majority of the officers and men on the *Alert* were told off for these expeditions, six officers and six men remaining on board, while fifty-three were split up into two parties, one to survey the coast of Grant's Land, and the other, under Commander Markham and Lieutenant Parr, to go North—to the Pole if possible. [Pg 100]

The day the start was made the two parties were drawn up in line alongside the ship, and the chaplain read prayers, after which, with cheers for one another and the men left behind, they started.

Both did good service, the survey party carrying the survey round the coast well on to the western side. The North Pole party pressed on in the face of terrible difficulties until they reached the farthest point North that had yet been recorded.

In addition to the sledges laden with stores, they dragged with them two whale-boats in case they should meet with open water. But there was no sign of it as far as they went. On the contrary, their route lay over such excessively rough ice that although they travelled as a rule about ten miles a day, so much of it was spent in getting round inaccessible hummocks, that the actual progress towards the North rarely exceeded one mile a day.

When on April 11 they bade their comrades farewell, they had provisions for seventy days, and all were in good health and spirits. The work of dragging the boats and sledges up and down the great masses of rugged ice which covered the Polar Sea was terribly trying, however, and by the time the ten miles were covered every one was ready to creep into the sleeping-bags and rest. As the sun began to rise above the horizon it made the snow and ice sparkle and glitter so much that their eyes, accustomed for so long to darkness, could not stand it. Goggles had to be worn to protect the sight, but before they were adopted by all the members several were affected, and Lieutenant Parr for some days suffered from snow-blindness, an affliction which fortunately passed away in time. [Pg 101]

As the days went by, the toil of dragging the sledges over the interminable and monotonous ice became more and more wearying. There was no variety in the work, no change in the surroundings; and although the men stuck at their task with true British obstinacy, it began to tell upon them. One man fell sick, growing weaker and weaker until he was no longer able to pull, and then was unable to walk. One of the boats was abandoned, and the sick man laid on a sledge. His condition was more than disquieting to the leaders, for it was evident he was suffering from scurvy, and no one could say who would be the next to develop it.

On April 23 they only added a mile and a quarter to their distance, for they had come upon clumps of ice hummocks which made their progress so difficult that they had to combine forces to haul first one sledge and then another over the obstacles. On April 28, when they were seventeen miles from the shore, they found the track of a hare in the snow, going towards the

land, but with the footprints so close together that the animal was evidently very weak. Where it had come from, or how it had got so far from the shore, were riddles they could not solve. [Pg 102]

As May came in signs of scurvy made themselves only too evident among the members of the crew, and on May 11 the leaders decided that the next day they would have to turn to the south once more. They started with a light sledge in the morning and pushed on till noon, when they took their bearings. They had reached latitude 83° 20' 26" N., and were then only 399½ miles from the Pole itself, having beaten all other records of Arctic explorations.

The little band, weary and sickening, forgot their woes in the presence of their achievement. A jorum of whisky had been presented to the expedition by the Dean of Dundee on condition that it was opened in the highest latitude reached. It was now produced, and the success of their efforts was toasted, the while each man smoked a cigar, also sent for consumption in the "farthest North."

A hole was cut in the ice and soundings were taken, the sea being seventy-two fathoms (432 feet) deep below them, with a clay bottom, the surface temperature being 28.5° and the temperature at the bottom 28.8°. Then they turned their backs upon the cold, bleak, ice-bound North, and began the journey home again, a journey which was to prove more trying than that which they had already accomplished.

The man who had first sickened, and whose name was Porter, had become so weak that he could not move from the sledge on which he lay wrapped in a sleeping-bag. Gradually one man after [Pg 103] another began to lose his strength, until three or four were only able to support themselves, and could give no assistance in hauling the sledges, with the result that the labour pressed all the more heavily on the remainder of the party, all of whom were more or less affected by scurvy. The first fortnight of the return journey was a terribly wearying time to the leaders, for they saw their men becoming weaker every day, so that the progress was slower and more difficult, while at the same time the only hope of escape was to reach land. On the coast it would be possible for relief to meet them, but out amongst the rugged hummocks of the Polar Sea the whole ship's company would not be able to find them. The extra work thrown upon those who were not entirely incapacitated told severely upon their already enfeebled systems. The toil no longer encouraged their appetites; instead, the sight of food became nauseous to them, until towards the end of the month half a pannikin of pemmican was more than each man could manage to eat. But the toil was still as weary, and the cold as intense, and without sufficient food to keep up their strength, the outlook was almost hopeless.

Still, however, the little band of seventeen struggled on, setting an example of courage, determination, and absolute devotion to discipline and duty which has won for them as deep an admiration as their achievement of the "farthest North" record. On June 2 only six men and the [Pg 104] two officers were able to do anything in the way of labour. Five men lay sick and helpless on the already laden sledges, and four more were just able to stagger along from point to point after the dreary procession of sledges. The progress was very slow now, as it required all the strength which was left in the eight, who alone were able to do anything, to move one sledge at a time. The second boat had been abandoned, as it could not be dragged farther, and the strain of moving the three sledges that remained was so great that when, on June 5, land was reached after an absence of two months, the entire party was in a state of collapse.

The next day they rested and debated what was the best course to adopt to obtain help, for it was outside of their power to drag the sledges any farther. Porter was almost at death's door, and unless help came very soon several more would be in a similar condition. Lieutenant Parr was the strongest, but even he was in a very low condition. That, however, did not rob him of his courage, nor of his readiness to give the rest of his life, if necessary, for the rescue of his comrades.

He volunteered to set out alone for the ship, to carry word of the terrible plight of the party and the need for instant relief. It was almost a hopeless task, and the heavy hearts of the stricken men, beating more hopefully at the token of such manly bravery, drooped again as they remembered the dreary miles of snow and ice which would have to be covered, and saw the [Pg 105] weakened state of their would-be rescuer's strength. But he was not to be gainsaid; weak as he was, he was yet the strongest of the party, and he would make the attempt.

On June 7 he started, the little band watching him as he trudged bravely away, giving him as hearty a cheer as they could. Slowly he made his way over the frozen shore, and, when he had passed out of sight, the men looked at one another and wondered. How far would he get before death overtook him? How long before they all yielded to the same conqueror?

By the next morning one had already gone, Porter passing away after nearly two months' fighting against the scourge. Commander Markham, and the four who were alone able to help him, paid the last honours to their deceased comrade. The British ensign was lowered to half-mast on the pole of the big sledge and a Union Jack was carefully wrapped round the body. With great exertion, in their emaciated condition, a place was hollowed out in the frozen soil, and there they placed him, the funeral service being read by Commander Markham, who, in his diary, thus wrote of the ceremony: "Of all the melancholy and mournful duties I have ever been called upon to perform, this has been the saddest. A death in a small party like ours, and under the present circumstances, is a most depressing event, and is keenly felt by all. During the service all were [Pg 106] more or less affected, and many to tears."

A rude cross was fashioned out of a boat's oar and a spare sledge batten, and it was placed at the

head of the grave with the following inscription: "Beneath this cross lie buried the remains of GEORGE PORTER, R.M.A., who died June 8, 1876. 'Thy will be done!'"

Anxiously they waited during the rest of the day, wondering as to the fate of Lieutenant Parr, and half expecting to see him stagger back to the camp, his splendid courage overcome by the difficulties of his journey. But he did not return, and the men crept into their sleeping-bags under the tents scarcely daring to think what the morrow would bring forth. One or two of the sick men were visibly worse since the death of Porter, and the next day might mean the end of their lives. If their gallant rescuer managed to make his way at all, he could not reach the ship in time for relief to come for another day or two, and no man dared to speak of what might occur in that interval.

The shouts of men's voices while they were yet within their sleeping-bags on the morning of June 9 were so unexpected, that, at first, those who heard them blamed their ears for playing them false. But it was no deception. Lieutenant Parr, with a magnificent heroism that deserves honour even among the many brave deeds which British sailors have performed, struggled on after leaving the camp without a stop until he came in sight of the *Alert*. Directly he was discovered he [Pg 107] told of his comrades waiting helpless and sick. Relief parties were formed on the moment, and two officers, Lieutenants May and Moss, with a dog-team sledge laden with lime-juice and restoratives, started away while the other sledges were loading.

They pressed on without a halt until they saw the tents of the camp, when they shouted, as no one was to be seen about the place. They were up to the tents before any one came out, and when they did it was as though new life had been given to each man. The lime-juice, of which they were in such dire want—for by an oversight it had been omitted from the stores—was at once served round, giving fresh energy to those who were still able to move about, and greatly relieving those who were incapacitated.

On the arrival of the remainder of the relief party, the invalids were all removed to the ship and attended to, every man recovering, under medical treatment, before the *Alert* weighed anchor for the South. This was done in August, when she rejoined the *Discovery*, the officers of which had also done splendid service in surveying the interior of Grinnel Land, behind Discovery Bay, and also along the northern coast of Greenland.

While the *Discovery* was lying in her winter quarters a successful attempt was made by Lieutenant Beaumont, accompanied by Dr. Coppinger and sixteen men, dragging two sledges, to [Pg 108] communicate with the *Alert*. They started away on April 6, while the cold was still nearly 70° below zero, a temperature which made sleeping almost impossible, as they had constantly to exercise to maintain their bodily heat. In spite of these drawbacks, however, the *Alert* was reached.

The intention was to continue the journey across Robeson Channel over to Greenland, and to explore as much of the northern coast as was possible. Reinforced by Lieutenant Rawson and five men, the party started on April 20, from the *Alert*, with four sledges and provisions for fifty-six days. As they approached the Greenland coast the ice was very rough and tumbled about in irregular blocks, with heavy snow lying ankle deep. Arriving at Polaris Bay, a depôt of stores was made and a detachment left in charge, the journey then being resumed; but the ice became more and more difficult, and the snow deeper. The strength of the whole party was taxed to the utmost to make any progress, and at the end of each day's work every one was wearied out with fatigue. Falls were frequent, owing to the unevenness of the ice, and one man, Hand, was particularly unfortunate in this respect. By the time that Cape Stanton was reached he was suffering considerably from stiffness, which was at first attributed to his tumbles; but when pain began to be manifest in his legs and gums, the truth of the matter became evident. He was affected with scurvy.

This discovery was made on May 10, and the leader at once decided to send him back to Polaris [Pg 109] Bay with Lieutenant Rawson and six men. The remainder of the men were asked to say whether they fancied they were affected; but all maintained the contrary, and asked to be allowed to continue the journey.

With six men Lieutenant Beaumont continued the route to the North, while Lieutenant Rawson returned to the depôt at Polaris Bay. On his way other members of his party developed scurvy, and their plight was so distressful that for some days before they reached the depôt, which they did on June 3, Lieutenant Rawson and one man alone were able to drag the sledge, the former being so severely afflicted with snow-blindness that he had to walk for days with his eyes covered by a bandage. Hand, the first man affected, died as the sledge came within sight of the camp.

In the meantime Lieutenant Beaumont's party pushed on, difficulties increasing with every mile. The snow became deeper as they advanced, until they sank at every step over their knees. Describing it, the leader said: "The hard crust on the top would only just *not* bear you, while the depth prevented you from pushing forward through it, each leg sinking to about three inches above the knee, and the effort of lifting them so high as to extricate them from the deep footholes soon began to tell upon the men." The sun shining on the snow seemed to be unusually warm, [Pg 110] while the exertion made them intensely thirsty, besides so exhausting them that they had to stop every fifty yards to rest and recover their breath. They were crossing a wide bay at the time, striving to reach the other shore, which did not seem to be more than a mile away. But the clearness of the atmosphere was very deceiving as to distance, for they struggled on for two days and still the coast only seemed to be a mile distant.

In order to make the way easier the men were marched four abreast, the sledge being left until a road was forced through the snow. For five miles the march was continued, and at the end of that distance the coast did not appear a yard nearer.

Sending the men back to the sledge with orders to rest till he rejoined them, Lieutenant Beaumont and one man went forward. But after some hours of trying effort they did not reach the coast, and were compelled to turn back, having been able to observe that the shore was composed of great towering cliffs with the snow piled up at the base. When they returned to the spot where the sledge had been left, they were thoroughly worn out by their exertions. As comfortable an encampment as could be arranged was made, and for two days the party remained resting.

Symptoms of scurvy were making themselves apparent among the men under the fatigue brought on by their excessive toil; but no word of complaint was spoken, every man being ready and [Pg 111] willing to do his duty. In the retreat of Commander Markham and his men from the "farthest North," a splendid example of British heroism and discipline was given. The story of Lieutenant Beaumont's party furnishes another.

The growing sickness of some of the men and the decreasing store of provisions brought home to the leader the necessity of a return being made. At the end of the two days' rest the sledge was turned in the direction of Polaris Bay and the men retraced their steps, finding the travelling somewhat easier now that they could use the road they had made by their previous passage through the snow. But the leader wanted to be able to form some idea of the coast line beyond where they had been turned back, and, time after time, he made ineffectual efforts to reach the shore and scale some high hill. At last he was successful, after tremendous exertion, in reaching the summit of Dragon Point, an altitude of 3700 feet. From here he was able to command an extensive view, the land extending away as far as he could see into a cape which he named Britannia Cape.

On June 13 they arrived at Repulse Bay depôt, and the state of the health of the men is best shown by the record Lieutenant Beaumont left, and which was recovered by members of the Greely expedition six years later. The record, dated June 13, 1876, reads:—

> [Pg 112] "Three of us have returned from the camp half a mile south to fetch the remainder of the provisions. Dobing has failed altogether this morning; Jones is much worse, and cannot last more than two or three days; Craig is nearly helpless; therefore we cannot hope to reach Polaris Bay without assistance. Two men cannot do it, so we will go as far as we can, and live as long as we can. God help us. L. A. Beaumont."

The discovery of this record, and the simple, manly faith and courage it betokened, was destined to be of great service to another band of English-speaking explorers in later years, and their opinion of it, and the admiration they felt for the man who wrote it, will be told in the account of the Greely expedition.

Meanwhile that Lieutenant Beaumont was making his heroic efforts to save the men of his party, Lieutenant Rawson was growing anxious as to their position. As they did not appear, he, on June 22, in company with one of the Eskimo and a dog-team sledge, started along the coast in search of them. Three days later they were met—on the last march they could have made, for they were at the end of their strength. Lieutenant Beaumont, in his account, says: "On the evening of the 24th we started for our last journey with the sledge; for, finding that Jones and Gray were scarcely able to pull, I had determined on reaching the shore to pitch the tent for the sick men [Pg 113] and walk over to Polaris Bay by myself, and see if there was any one there to help us. If not, to come back and send Jones and Gray, who could still walk, to the depôt, while I remained with the sick and got them on as best I could."

When Lieutenant Rawson met them, he found the intrepid Beaumont straining at the sledge, with the two sick men helping him as much as they could, while on the sledge lay the four helpless invalids, made as comfortable as circumstances would permit. No time was lost in removing them to Polaris Bay, where, under medical treatment, all recovered save one. After a brief rest at Polaris Bay the journey back to the *Discovery* was successfully carried out, and Lieutenant Beaumont had the pleasure of learning that his expedition had added considerably to the geographical knowledge of Northern Greenland.

Shortly after the return of the sledge parties the *Alert* rejoined the *Discovery*, and, towards the end of August, both vessels weighed anchor and started for England, where they arrived on November 2, 1876, having been absent for seventeen months, during which time they had carried the British flag to the "farthest North," and had brought within the knowledge of man localities previously unknown. They had not reached the Pole, and had come to the conclusion, after their experiences, that to do so was beyond the range of human possibility.

[Pg 114]

CHAPTER VI
THE GREELY EXPEDITION

The Scheme of the Expedition—Fort Conger—Arctic Wolves—Atmospheric Marvels—A

Terrific Storm—Influence of the Sun—Lieutenant Lockwood's Expedition—The Second Winter—Preparations for Departure—They leave Fort Conger—A Remarkable Ice Passage—They fail to make Cape Sabine—A New Camp—Rations running Short—Fruitless Efforts to reach Food Depôts—Starvation and Death—A Bitter Blow—The Arrival of the *Thetis*.

In 1881 the Government of the United States determined to send out another expedition towards the North Pole, and a vote of $25,000 having been passed by Congress for the purpose, Lieutenant Adolphus Washington Greely was appointed to the command. Lieutenant Greely, who was an officer in the 5th Cavalry regiment, had, as his companions, three officers and twenty-one men selected from the United States army.

The scheme of the expedition was to proceed by steamer as far north as Lady Franklin Bay, where they were to form a depôt on Grinnel Land, and, using it as a base, push forward, by means of dog-sledges over the ice, and by steam launch over the open water, as far north as it was possible to get.

The steamer *Proteus*, a vessel 467 tons and 110 horse-power, was chartered by the explorers to [Pg 115] convey them from New York to Lady Franklin Bay. They sailed in June and proceeded to Upernavik, in Greenland, where they took on board their sledge dogs and two Eskimo, Jens and Frederick, to look after them. On July 1 they resumed their journey in fairly open water. The season was especially mild, and they were able to make excellent travelling through the unimpeded water. On the way they stopped at Cary Islands and examined the records left there by Sir George Nares in 1875, and which had been examined once before by Sir Allen Young, in 1876. The sea was full of white whales, narwhals, and grampus. The latter has the reputation of being a voracious feeder, one authority stating that a dead grampus was found, choked by a seal he had attempted to swallow, although, when he was opened, his stomach was found to contain no fewer than thirteen porpoises and fourteen seals.

On August 4 the *Proteus*, for the first time during the voyage, was stopped by the ice. Being built specially for navigating the ice-covered seas, she was very powerful in the bows, which were further embellished by a strong iron prow. Thus she was able to force her way through ice which would have been impassable to a lighter craft. Her method, when she was faced by moderately thin ice which was yet thick enough to stop her ordinary progress, was to steam astern for a couple of hundred yards and then rush full speed at the ice. The strength of the iron prow and [Pg 116] the force of her powerful engines drove her into the floe, but the operation was one that required great care. As she approached the floe, the crew, running from one side of the deck to the other, caused her to roll as she struck, the engines being reversed directly her prow penetrated the ice, so as to prevent her wedging herself in. This exciting operation was repeated several times when she met the floe in Lady Franklin Bay, and only by its means was she able to ram her way through and reach the destination of the expedition.

A site for landing was selected on the north of Discovery Bay (where the *Discovery* wintered in 1876), and on August 11, 1881, Greely landed, and proceeded to the cairn which had been erected by the Nares expedition. Here he found two copper cases labelled "Reports and General Information." The date upon them, which showed when they were deposited, was August 11, 1876, exactly five years before to a day.

Proceeding a little distance from the spot where the *Discovery* winter quarters had been erected, a suitable situation was marked out for "Fort Conger," which was to form the base of the operations pending the time when the relief ship was due to take the expedition home again.

These animals form a welcome addition to the larder of the Arctic explorer.

During the following week every one was hard at work erecting the frame house which was to form their home during the next two years, unloading stores and other articles belonging to the [Pg 117] expedition, arranging the heavy casks and cases of imperishable provisions near the house, and exploring and hunting over the surrounding country. The hunting was a necessary part of the business, for winter would soon be in and no fresh meat would then be obtainable. So a few of the best shots spent their time in the valleys round the bay, where a large number of musk oxen and other game frequented.

On August 18, all the stores, &c., belonging to the party were landed from the *Proteus*, and that vessel, being discharged, got up steam and bade farewell. She was, however, prevented from getting out of sight until August 26, the ice setting in rapidly and strongly. The men of the party worked with such a will that they had their house built, the recording instruments erected in proper localities, the provisions stacked, and everything in order sufficiently early to permit them to carry out some surveys while the weather was yet mild enough for sledge travelling. Attention was also given to obtaining as much game as possible, and by the time that the temperature was cold enough to warrant their going into winter quarters and giving up outside work at any distance from Fort Conger, they had obtained for their larder twenty-six musk oxen and ten ducks, besides hare, seal, and ptarmigan, in all 6000 lbs. of fresh meat for their own food, and an equal amount for the dogs.

In the middle of September they were visited by a large pack of wolves. These were first discovered prowling over the ice on the harbour in front of the encampment, and, fearing the loss [Pg 118] of some of the dogs, as well as provisions, a hunting party went out to shoot them. But the wolves were too cunning, keeping out of range until the men were tired out. They were frequently fired at, but none fell, although, as subsequent events proved, this might not have been due to bad marksmanship. The Arctic wolves, as was discovered later, are perhaps the most tenacious of life of any of the Northern animals.

One was seen, a day or so later, within a hundred yards of the house. It was immediately fired at, and rolled over with a bullet through the body; but before the marksman could get over to where it lay, the apparently dead creature scrambled to its feet and made off, bleeding profusely. The trail left by the blood was distinctly visible on the snow, although the wolf itself, being covered with pure white fur, was quite invisible. For over an hour the trail was followed, and when at last the dead body was found, it lay practically bloodless, having struggled on while there was a drop of blood in its veins. In view of the difficulty of shooting them, the men resolved to poison them. But here, again, the wolves were not to be caught.

The first time that poisoned meat was put out it was left untouched. Some good meat was added, and at once disappeared, though the pieces containing poison were still left alone. The poisoned baits were then taken up, and only good meat put down, the wolves always taking it until, their [Pg 119] confidence being aroused, a few poisoned baits were mixed with the other. The experiment succeeded so well that when the baits were next visited four wolves and one fox were found dead. The others, evidently alarmed, made off and did not again return.

As October passed the phenomena of the solar halo and aurora began to make their appearance. The observation of atmospheric conditions being one of the objects of the expedition, great attention was paid to these displays, and some excellent descriptions were given of them. One which occurred on October 21 and lasted five hours is thus described by the leader of the expedition:—

"It consisted of two concentric rings, distant 23° and 46° respectively from the sun, which were marked by five mock suns where the rainbow tints were most clearly displayed. This was followed at evening by the first aurora display, in the form of a delicate convoluted ribbon of colourless light. On the 24th there was another halo. This was a double one, there being two perfect concentric half-circles, distant 23° and 46° from the sun, each half-circle having a contact arch of magnificent clearness. No fewer than six mock suns appeared, two on either hand and two above the real sun, with prismatic colours in each case as vivid, and clear as in any rainbow, the heavens being filled with a great glow and wealth of colour."

After the sun had gone and the twilight of the long winter night had set in, the sky was vivid, at [Pg 120] one time, with a wide sweep of red, yellow, and blue, marked by bars of white light running up and down. Later, when the moon had risen, further atmospheric marvels were recorded.

On one occasion the moon was surrounded by two circles, 22° and 46° above the horizon. Both were topped by contact arches, and within them six mock moons were present, two on each side of the true moon, and two directly above it, all of which were brilliant with the colours of the rainbow. Spires of light proceeded from the moon vertically, reaching downwards to the horizon, and upwards to the outer circle. In addition to these, a brilliant streak of white clear light extended from the moon, horizontally, on both sides, completely round the horizon, and now and again a faint mock moon of rainbow colours appeared high over the whole, and another very low under it, making eight mock moons all visible at the same moment round the real one. The moon was also seen surrounded by a corona of four distinct bands of coloured light, the first white, the second yellow, the third blue, and the outer one red.

But all the experiences of the winter were not so gratifying as these aerial displays. As soon as

the snow lay thick on the ground the men banked it up against the sides of the house until they were completely covered in up to the eaves. It then froze on the outside, and the house was practically covered in with ice. This was of very great value in preventing the loss of heat from [Pg 121] the interior, and, later on, in saving the house from being blown away in a terrific hurricane which occurred. But even with the protection of the frozen snow outside, and the constant burning of fires and lamps inside, the temperature of the house was, in midwinter, so cold that any water accidentally spilled on the floor turned to ice, and unless the ink-bottle was kept near a burning lamp, the ink froze at once. Outside everything except alcohol was frozen solid, the mercury being hard in the thermometers, and even the rum getting thick as syrup. The lime-juice, of which a daily ration was taken, was frozen into tablets, and so quickly did any liquid turn to ice that some of the sledge-dog puppies were frozen to the ground through running on to the place where the warm contents of the slush-bucket were thrown.

Early in January the barometer, falling very rapidly, warned them that a severe storm was approaching. Suddenly a fierce gust of wind swept over the house, followed by a steady blow, the apparatus for registering the velocity of the wind showing it to be at the rate of eighteen miles an hour. The barometer continuing to fall, a man was sent out to take an observation from an outside station, but the force of the wind had increased so much that he could not face it alone, and two men had to go. The air was soon filled with driving snow, and the rate of the wind reached fifty miles an hour. It was now only possible for six men, supporting one another, to [Pg 122] stand against the dense volumes of snow which the wind carried. When the velocity attained to sixty-five miles an hour, fears were entertained as to the safety of the house. But still the wind increased until, in a series of terrific gusts and squalls, the house rocked and trembled as the register marked ninety miles an hour. It was a moment of intense anxiety for the members of the party, for the destruction of the house at that period of the year would almost inevitably have meant their own destruction. Fortunately it was securely built and so well protected by the banked-up snow, that it withstood the fury of the hurricane.

This furious outburst was the final effort of the winter, for within a few days of its occurrence the sky began to show signs of the approaching sunrise; with the advent of light the spirits of the party, necessarily depressed by the prolonged darkness, rapidly resumed their normal contentment. When at last enough natural light existed for the men to see one another, they were amused at the appearance of their faces. The prolonged absence of sunlight had entirely robbed their cheeks of any semblance of ruddiness, their complexions having changed to a ghastly yellowy green tint, as though each one was suffering from a severe attack of sea-sickness. The murky light of the lamps had not revealed the change, and the more vainglorious were considerably disturbed at their bleached cheeks, fearful lest the pallor should always remain, like [Pg 123] the whiteness of the bear's fur. But it passed off under the influence of the sunshine.

Nor was this the only change produced by the sun. The effect of it upon the land was so pronounced as almost to seem marvellous. Directly spring set in sledge parties were despatched in all directions to survey and spy out the country. One was led by Greely himself, its course being along the route marked out, for a certain distance, by one of the *Discovery* parties in 1876.

Passing beyond the limits of the previous exploration, a large river, entirely frozen over, was discovered, and along its course the party made their way. The ice was wonderfully smooth in comparison with that on the salt water, and excellent travelling was made, the men and sledges frequently being able to slide for a hundred yards at a time. At the head of the river they found an enormous glacier completely blocking up the valley, extending five miles from side to side, and 175 feet high. This was late in April, and everywhere the ground was covered with ice and snow, desolate and motionless, with no sign of life, and no sound, save the faint gurgle of running water which was occasionally noticed under the ice on the river.

Early in July, little more than two months later, this valley was again visited, but so great was the change in its appearance that the men might have doubted its identity with the cold, desolate [Pg 124] place they had previously seen, but for the existence of the sparkling glacier. The river now flowed along, glittering in the bright sunlight, between banks covered with flowering plants. Bright yellow poppies gleamed all over the verdure-clad slopes, with sturdy heath blooms, daisies, and other blossoms mingling, and over them were flitting innumerable white and yellow butterflies. Humble bees droned, and flies, including the familiar daddy-long-legs, were everywhere present, as well as their arch-enemies, the spiders. Ptarmigan, their white plumage somewhat speckled with dark feathers, plovers, and birds of smaller size, were seen on the wing; while over the verdant sides of the valley and along the banks of the river, large herds of musk oxen were browsing, with calves following the cows. The sky was brilliantly blue and almost free from clouds. In the face of so much that was beautiful and full of life, it was difficult to realise that a few weeks later the valley would again be desolate and deserted, owning once more the supremacy of the icy grip of the frost and snow.

Exploring the valley carefully, some very interesting discoveries were made of ancient Eskimo dwellings. A number of relics were obtained, some of them being implements which were quite unintelligible to the Greenland Eskimos who were with the party. The remains of the houses showed that they had originally been substantial structures, built of slate, and must have been [Pg 125] permanent residences rather than mere summer quarters.

While the interior of the country was being explored, other sledge parties set out over the frozen sea. One of these journeyed North, and reached the spot where the *Alert* had passed the winter in 1875. It was intended to continue the journey over the ice towards the Pole similarly to the

sledge party Commander Markham and Lieutenant Parr had led, but the ice was too rough for them. They passed beyond Cape Sheridan and set out towards the North, but turned back, finding "nothing but an inextricable mass of huge bergs, and enormous hummocks piled up in a similar manner as when journeyed over by Commander Markham." The scientific instruments they had with them had to be abandoned at one place, owing to a sudden opening of the ice, but they approximated their highest latitude as being 82° 56' N. From the summit of a high berg, they fancied they saw open water to the North, and then they returned to the land, finding cliffs which rose 2000 feet straight out of the water, and along the base of which the ice lay piled in tremendous heaps.

Another party, under Lieutenant Lockwood, the second in command of the expedition, set out in the early spring across the frozen straits to Greenland. This was over a similar route to that taken by Lieutenant Beaumont of the *Discovery*; but the later expedition, not having to struggle against [Pg 126] the affliction of scurvy which had proved so disastrous to the *Discovery* party, was able to reach a far higher latitude.

The party consisted of Lieutenant Lockwood, Sergeant Brainard, and the Eskimo Frederick, and they succeeded in reaching the most northerly point that had yet been discovered, not only on the coast of Greenland, but also in the Arctic regions. The latitude recorded was 83° 23' 8" N., and thus the honour, which for three hundred years had been the boast of the British, the honour of having attained the nearest point to the North Pole reached by man, was wrested from the British Lion by its cousin, the American Eagle.

Although only three men were in the party which reached this high latitude, the party which set out from Fort Conger comprised thirteen men and five sledges. The experience gained by the members of the Nares expedition was of the utmost value to subsequent explorers, and the members of the Greely expedition always made acknowledgment of this fact, coupled with very complimentary references to the skill, the courage, and the devotion of those whom they termed "our kin from over the sea." Thus it was that in laying the plans for this northerly trip they provided for a series of food depôts and relief parties all along the route. Several of the former had been placed in position during the early spring, and there is no doubt that this arrangement [Pg 127] contributed very materially to the success of the enterprise. The last depôt was formed when nearly in sight of Cape Britannia, and from thence the small party of three pushed forward. The dog team saved them an enormous amount of labour by dragging the sledge for them, but even then they found the travelling exceedingly difficult. Their sleeping-bags were damp, and consequently they were always compelled to rest in great discomfort. As they approached Cape Britannia the route became more difficult, and their best march was sixteen miles in ten hours. Beyond the cape an island was reached, to which the name of the leader, Lieutenant Lockwood, was given, and the extreme point of which furnished their "farthest North." The coast line still showed beyond, and to the most distant point the name of Cape Washington was given. Then the small band turned back, having succeeded in reaching a few miles nearer the Pole than Commander Markham, whose journey, however, was over the frozen sea, whereas the other was along the Greenland coast.

The following spring, to anticipate the course of the narrative, another effort was made to reach Cape Washington, but so rapid a thaw set in that the party had to turn back before reaching as far as Lockwood Island. They, however, secured all the relics of Lieutenant Beaumont's party, including a British ensign, which were faithfully preserved throughout the terrible privations the expedition was fated to undergo. These relics were subsequently forwarded by the United States [Pg 128] Government to the British and are now in the Greenwich Museum with the Franklin mementoes, treasured not only as emblems of British courage but also of American good-will. Of the memorable record left by Lieutenant Beaumont at Repulse Bay, its perusal by the members of the Greely expedition is thus described by the leader:—

"This brilliant record of British courage, discipline, devotion to duty and endurance, must ever affect deeply all who may read its full details. To the men of the Lady Franklin Bay Expedition, who justly appreciated the terrible contingencies of the situation, and who bore similar dangers, this story, as told by the gallant Beaumont, was full of deep and assuring interest."

The American festival of "Decoration Day" occurred while the party were at Polaris Bay, the place where the two *Discovery* men who died were buried. The festival is one for the commemoration of American heroes, and on that day throughout the United States all the graves of their heroes are decorated. Here on the bleak, barren Greenland coast they remembered the festival, and kept it by taking the Stars and Stripes from the sledge poles and draping them over the rough monuments erected above the remains of the two British sailors.

The second winter that was passed at Fort Conger was monotonous and gloomy. The experience of the previous period of darkness was of great service, inasmuch as the comfort of the [Pg 129] expedition was improved in many ways. The piled-up snow which had formed so useful a protection the year before was carried right over the roof, considerably increasing the warmth and snugness of the interior. But there was one fact which weighed somewhat heavily on the minds of every one. A relief steamer was expected before the winter set in, and it had not arrived. There was still an abundant supply of food, and no alarm was felt on that score; but the novelty of the surroundings having worn off, the prospect of the long, weary stretch of darkness had a depressing influence. It, however, passed without any untoward incident, and with the return of the sun field work was resumed. The most notable journey was that of Lieutenant Lockwood and his companion on the "farthest North" trip, Sergeant Brainard, who, in one month, covered 437

miles of the hitherto unexplored interior parts of Grinnel Land, discovering numerous lakes and glaciers. One of the latter was of particular interest by reason of the vari-coloured face it presented. The top layer, which overhung slightly, was of dull opaque white, that immediately beneath it ranging in colour from pale green to a clear blue, while the next and thickest layer was of a rich chocolate colour, due to the soil which had been frozen in with the water. The lowest streak was similar to the topmost, dull opaque white.

In their absence the remainder of the explorers were busily engaged in establishing food depôts [Pg 130] to the south, along the route they would be compelled to take in the event of a retreat being necessary. The non-arrival of the relief steamer prior to the winter gave rise to some speculation whether it would arrive in the spring, and a plan was arranged for a retreat to the south being carried out, if no relief ship came, in the boats the expedition possessed. These consisted of a steam launch 27 feet long, an iceboat which had been abandoned by Lieutenant Beaumont in 1876, and two whale-boats. A depôt of forty days' full rations was placed at Cape Baird and another of twenty days' rations at Cape Collinson, as soon as the ice was open enough to allow the launch to proceed. Then when it had returned and all the survey parties were in, a decision was come to that if no steamer arrived by July 31 the retreat would be commenced.

July passed and August arrived, but there were no signs of the approach of any relief steamer, and, on August 9, with the boats loaded with the records of the work done and as much food as could be stored in them, the party bade farewell to Fort Conger and started on their memorable journey. The lateness of the season made navigation extremely difficult for such small craft, and they were frequently impeded by ice which would have offered no obstacle to a big steamer. They had scarcely got out of sight of the house where they had passed the two long dark winters [Pg 131] before they were so beset with loose ice that progress was almost impossible. Then new ice formed round them, and they were hard and fast. The fact that they only carried a limited supply of fuel made their position more serious, and when, on August 18, a temporary breaking in the floes enabled them to move forward, there was a general rejoicing. But it was soon checked on discovering that they were forced inside of a huge mass of ice over fifty feet high and extending right up to the solid floe. It was impossible to turn back and fight through the drifting ice behind them, and the only hope of escape seemed to be to steam on in case there might be a channel through the floe ahead.

As they passed along the great wall of ice they were amazed at seeing a crevice run into it. Arriving opposite to it, they found that it was a cleavage which went right through the mass, and they turned into it. The enormous berg had grounded and had split asunder, leaving a passage a hundred yards long and barely twelve feet wide, the sides of which were sheer fifty feet high on either hand. Such a formation was unique, even in the Arctic regions, and the steaming through it was an adventure without a parallel.

It led them into fairly open water, and they were able to push on into Rawlings Bay before they were again beset. This time it was not the new ice but the closing in of the floes that caught them. So quickly did the masses close in that the boats were caught and "nipped" before anything [Pg 132] could be done to save them. The men at once scrambled out on to the ice, striving to lift the lighter boats on to the floe and unloading the provisions from the others as fast as they could, lest the crack should open again and everything be lost. The nip, however, had not been so severe as to endanger the floating capacity of the boats, but the ice had closed too firmly to allow of any hopes of their being able to force their way through. A strong wind from the north, in spite of the snow and cold it would have brought, would have been welcome; but the days were provokingly calm, and the ice only moved south at its ordinary slow rate. By August 26 they had travelled 300 miles from Fort Conger and were within fifty miles of Cape Sabine, a headland where there was a large supply of stores left by Sir George Nares in 1876. If they were able to reach there before the winter night set in, there was some chance of their existing through the dreary period which, it was now evident, they were doomed to pass in that locality. And yet the spirits of the party were as bright as though a steamer were within sight of them. One of them, in his diary, wrote: "Adversity in any form would fail, I think, to dampen the spirits of the men. Our situation is desperate. Any moment the ice may crumble beneath our feet and the sea swallow up the entire party. Still, while exercising on the ice this evening, the men danced and sang as merrily as they [Pg 133] would have done in their own homes. They are irrepressible in the face of all this uncertainty and perhaps starvation."

The end of the month found them still beset, and with barely fifty days' rations. The opinion was now divided as to the best course to adopt, whether to remain in the boats and wait on the off-chance of their drifting near Cape Sabine, or to take to the sledges and push on over the rough ice to the shore. They had been drifting for thirty miles, and only twenty now lay between them and the cape with its store of provisions. The leader was averse to leaving the boats at once, and the days dragged on until, on September 10, it was evident that the sledge journey would have to be undertaken if the shore was to be reached and a camp formed before the darkness set in.

Unfortunately when they did abandon the boats the weather changed, and a cold wind with driving snow came to make their struggle still more difficult. They tried at first to drag two of the boats with them, but one soon had to be abandoned and the party struggled on. Their sleeping-bags froze and filled with drifting snow so that they were able to obtain but little rest when they halted, and when they were moving they were always cold and miserable. Until September 28 they were struggling over the rough, difficult ice, and then their trials were further increased. They were nearing the shore, and the force of the tide, backed up by the pressure of the ice [Pg 134] grinding along before the wind, caused the floe to crack and break up. Only by the most

persistent energy and exertion were they able to get their stores and themselves on shore, though still some distance from Cape Sabine.

They had now travelled 500 miles since they left Fort Conger, and not only were the men considerably exhausted by their recent struggle, but winter was setting in very rapidly with constant and heavy storms. It was therefore decided to form a camp where they were, while the snow had not frozen too hard for them to get some stones for a shelter. They had been compelled, on their journey over the ice, to abandon everything in the way of covering save their sleeping-bags, and unless they built a hut of some description the rigour of the winter would inevitably be fatal to all.

Such stones as could be found were collected and built into a low wall forming a square of about sixteen feet. The stones were difficult to obtain, and the wall could only be made three feet high. An opening was left in one of the sides of the square and a passage way constructed, so that the entrance to the interior did not open directly on to the frozen exterior. Across the top of the walls the boat they had dragged with them over the ice was laid keel uppermost, the oars being laid under it so as to maintain it in position, the open spaces between the sides of the boat and the walls being covered with such canvas as they had. Around the stone walls and over the top, snow [Pg 135] was piled, and their living house was complete. It sheltered them from the wind and from the extreme bitterness of the cold, but beyond that nothing could be claimed for it. Every one had to enter it on hands and knees, and, once inside, no one could stand up, while the taller men of the party were only able to sit up in the middle of the hut where the boat made the roof slightly higher.

The men arranged their sleeping-bags against the walls with the feet towards the middle of the floor, and when they had crept in through the narrow entrance, they groped their way into the bags. Then, half lying and half sitting, with their shoulders against the stones behind them, they made themselves as comfortable as they could during the long period of darkness. They divided themselves into messes for the purpose of feeding, and two cooks prepared the food, an operation that was always difficult and unpleasant. It had, of necessity, to be carried on inside the hut, and when the two men were kneeling in a cramped-up position over the make-shift for a stove in the middle of the floor, there was no room for any one else to stretch his legs. Every one had to huddle up as closely as possible, and as all the smoke from the stove had to find its way out of the hut the best way it could, the atmosphere during cooking time was far from refreshing. The heat from the stove also thawed the ground immediately under it, and the snow on the [Pg 136] canvas over it, with the result that the cooking of every meal meant a thorough wetting as well as a choking for the cooks.

As soon as the hut was finished, a small party pushed on towards Cape Sabine in order to locate the provisions stored there. On October 9 they returned with the news that despatches had been found, stating the *Proteus* had foundered in the ice on July 24 just off the cape, and that the crew and relief party had started to the south so as to meet the second relief steamer *Yantic*, or a Swedish steamer which was known to be in the locality, and send on help to the Greely expedition.

The little party also discovered some provisions and the whale-boat, previously abandoned on the ice, which had drifted ashore near the cape. This was subsequently used as firewood when all other fuel was exhausted.

The news of the disaster to the *Proteus* was a serious blow to the expedition, as it meant that no help would be able to reach them until the following spring at the earliest, and, in the meantime, they would be compelled to exist as best they could upon their meagre stock of provisions. The relief party who had visited the cape on their way from the wreck of the *Proteus* had very considerably reduced the stores which the Greely party counted on finding, and when they obtained the remnants which were left, part of the bread was found to be a mass of green slimy [Pg 137] mildew. The men had now been on reduced rations for many days, and so hungry were the members of the band sent to convey the stores from Cape Sabine to the hut that when the green mouldy stuff was thrown out by the officer in charge, the men flung themselves on to it and devoured it despite all he could do to persuade them from such a course.

The question of the strictest economy in the management of the food supplies was now a matter of life or death, and very seriously the leaders debated it. On October 26 the sun sank beneath the horizon, and in the ensuing darkness, which lasted for 110 days, there would be no chance of obtaining any game. A few blue foxes had been killed since the camp was formed, and half the number were set aside for subsequent consumption, those consumed at once being devoured to the bones, every part being put into the stew.

Meagre as the rations were, it was necessary to reduce them still further if the food was to last until the spring. By a further reduction it was calculated that the party could exist until March 1, when the available supplies would amount to ten days' rations. But no relief could possibly reach them until a couple of months later than that, and how were they to live after March 10, when the last crumb of their supplies had been consumed?

There was only one course open for them, and that was explained by the leader. On November 1, [Pg 138] the allowance for each man would be fourteen ounces, given out every twenty-four hours, and on March 1, as soon as there was light, they would take their remaining ten days' supply and set out across the frozen straits in the forlorn hope of reaching an outlying camp of Etah Eskimo on the Greenland coast.

The terrible prospect of such a scheme to men situated as they were can scarcely be imagined. For over a month they had already been slowly starving on an amount of food for daily consumption which an ordinary man could comfortably eat at one meal, and now that amount was to be decreased to less than a pound of food a day and in a climate where the cold was so intense that water could not be kept from freezing inside the hut excepting it was over the stove. For four months they would have to face that rigid diet, suffering the pangs of starvation constantly, almost entirely in the dark, and always huddled up in the sleeping-bags against the walls of their low-roofed hut. Yet they accepted the scheme without a murmur.

Seldom have men shown themselves so absolutely courageous, for at the best it was merely slow starvation so as to be able to make an almost hopeless dash for freedom and food in four months' time. The suffering during those four months was terrible. Men, as soon as they got hold of their day's rations, were tempted to devour them at once, and so still for a time the ceaseless gnawing of their hunger; but to do so meant that in an hour's time the pain would be back again with no [Pg 139] means of staying it until twenty-three hours had passed. Calmly and bravely they faced the ordeal, dividing their scanty store into regular meals, and when, by an accident one of them upset his can, spilling his few mouthfuls of tea on the ground, the others contributed from their share so that he should not go entirely without. Nothing could exceed the touching fidelity which characterised their bearings, one to the other, during this period of unexampled suffering.

At Cape Isabella, a stock of 140 lbs. of meat was known to have been left by Sir George Nares, and a party of four set out in the hopes of securing it. For a week before they started they were allowed an extra ration in order to strengthen them for the trial of a journey in the dark over rough ice and with the temperature at 34° below zero. The extra ration consisted of two ounces a day.

For five days they battled their way through the darkness against a heavy wind laden with snow, and at last found the place where the food was. Piling it on their sledge, they turned back home again, and for fourteen hours laboured with it, only consuming a little warm tea during that time, for they had no means of heating more. One of the four was badly bitten by the frost, and was soon so stricken that he could not even stagger along. A piercing wind was blowing, and to save their comrade's life, the others abandoned the sledge and tried to support him. Soon two of them [Pg 140] became exhausted, and the remaining one, Sergeant Rice, pushed on alone to the camp in order to bring help. For sixteen hours he was fighting his way over the twenty-five miles that lay between him and the hut. When he arrived there his lips were too frozen for him to be able to speak at once.

Weary and weak as the whole party was, eight of the strongest at once started off in rescue. When they picked the other three up, they found them lying under the sleeping-bag with the sick man between them, and the bag frozen so hard over them that it had to be cut open before they could be got out. Then they resumed their way to the camp, which they reached after forty-four hours' absence, in which time they had covered forty miles.

The frost-bitten man, Elison, was almost dead, his face, feet, and hands being absolutely frozen, but so determined were they all to survive as long as possible that he was tended with all the care they could command. He was kept alive in spite of his sufferings, which, during the first week after his rescue, were so severe that he daily called on his comrades to end his misery.

Meanwhile the memory of the abandoned sledge laden with meat was constantly in the minds of the starving men, whose hunger was now so great that in the darkness after the lamp was put out —economy compelled them to use it only for cooking—men crept to the stove and devoured any rancid fat left in the lamp. But still discipline held them together, and they made no mention of [Pg 141] their sufferings to one another. The success of the journey across the ice on March 1 was what they looked forward to, and with the arrival of that date they believed their sufferings would be over.

On January 18 the first one of the party to die passed away, really of starvation, although the men, to keep the ugly word away from their minds, accepted the doctor's statement that it was of an effusion of water at the heart that the man had died. His end made a deep impression on the gallant little band, all the same, and by the beginning of February several more men were in a critical condition, including Lieutenant Lockwood, who refused to accept an extra ration of two ounces a day from the diminished stores.

Sergeant Rice, accompanied by the Eskimo Jens, made a plucky effort to reach Littleton Island, where an outlying camp of Eskimo might be found; but Jens could not stand the journey, and, five days after starting, they returned. Every one was now impressed with the necessity of husbanding their energies for the great effort to be made on the first day of March, and as February slowly passed away, the emaciated creatures grew enthusiastic as they sought to cheer one another up by detailing the tremendous feasts they would have when they returned to civilisation. At length the first of March dawned, and the brave hearts, which had kept up so long [Pg 142] against starvation and despair, shrank before the terrible blow they received. The ice had broken, and open water rolled where they had planned to cross on the ice. Nothing was said, for the courage of the men was only equalled by their consideration for one another, but the effect of the great disappointment sank deep into the minds of many.

The food remaining was eked out through the month with the aid of some blue foxes and a ptarmigan, which were eaten to the bones, and April found them with only a few days even of the starvation rations remaining. Several of the men were so weak that they could barely turn over in

their sleeping-bags. The Eskimo Frederick was found dead in his bag, and another of the little party followed the next day. Then Sergeants Rice and Fredericks insisted on making an effort to reach the meat abandoned when Elison was frost-bitten. It is difficult to understand why the effort had not been made before; but many errors of judgment are conspicuous after a campaign which are not so apparent in the moment of struggle.

Now that it was made it failed, through the cold freezing wind penetrating the starved bodies of the two men. Rice, who throughout the terrible ordeal of their captivity had never spared himself, was the first to feel it. A strong wind was blowing, bringing down heavy snow squalls. Suddenly Rice began to talk wildly and then staggered. Fredericks grasped him by the arm and tried to keep him up, but the cold and starvation had too tight a hold upon their victim. He vainly [Pg 143] endeavoured to pull himself together, but only for a moment; then he sank down on the snow, babbling about the feast he was going to enjoy.

His comrade tried to restore him by giving him some of the stimulants they had with them, and did not hesitate to strip off his own fur coat to lay upon the other, sitting the while, holding his hands, and exposed to all the biting fury of the Arctic wind, in his shirt sleeves. But everything was useless; Rice was too worn out and too weak to fight further, and died as he faintly talked of the food he fancied he was eating.

The shock to Fredericks was almost overwhelming, for he was miles away from the camp, chilled to the bone, and with only a little coffee and spirits of ammonia to revive his own drooping vitality. Yet he would not leave his dead comrade until he had reverently laid him in a shallow resting-place in the snow, though it almost cost him his life to pay this last tribute.

When he at last managed to reach the camp with his sad tidings he was almost gone, and the news he brought plunged every one into the lowest depths of sorrow, for Rice had always been one of the bravest and best of the party. Those who were able to do so, attended to Fredericks and revived him.

To those who were weakest the end of Rice was a fatal blow, and the next day or so saw three or [Pg 144] four pass away, one of whom was the intrepid Lockwood. A very few more days and all would have gone but for a gleam of good fortune. A young bear was killed, and the 400 pounds of meat obtained from it was the salvation of the survivors.

Several seals were seen in the straits and a few walrus, and all who could still handle a gun were daily striving to obtain fresh supplies for the larder. Eskimo Jens, who hunted assiduously, succeeded in killing a small seal; but in a chase after another his kayak was injured in the ice and he was drowned.

After his death only misfortune attended the hunting, and, failing to replenish their stock of game, they were reduced to such a terrible plight that they had only the thick skin of the seal on which to subsist. Even this fare was carefully divided and measured out, so that life might be maintained as long as possible in case a relief vessel came. One day it was found that somebody was stealing. All the party was assembled, but no one would admit the theft. It was decided that the thief should be shot if discovered. One man, being suspected, was watched. He was caught and executed.

A fortnight later, the last few square inches of the seal's skin was gone, and the men, now little more than living skeletons, lay in their sleeping-bags looking at one another with hollow eyes, wondering, perhaps, who would be the last to go, when a steamer's whistle sounded over the straits.

At first they dared not trust their ears. It must have been a gull crying, or a bear, they said, and [Pg 145] the only man with strength enough to crawl crept out to see. The others lay where they were, straining their ears to catch again the sound which had so moved them, but the minutes passed on in silence. The man who had gone out did not come back, and their hopes fell. No one spoke, for it was too plain they had been deceived, and a profound silence reigned. Then they heard a great shouting, and before their minds could understand how it was done, they were surrounded by men of their own race, who were administering restoratives as quickly as they dared.

The *Thetis*, commanded by Captain Schley, of the United States Navy, had reached them, and so, on June 23, 1884, the survivors of the Greely expedition were saved.

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CHAPTER VII
PEARY IN GREENLAND

The Greenland Question—Departure of the *Kite*—Peary breaks his Leg—A Camp made —Habits of the Eskimo—A Brush with Walrus—"Caching" Food—An Arctic Christmas Feast—Peary starts for the Great Ice-Cap—A Snow Sahara—The Ice-Cap Crossed—A Marvellous Discovery—Sails on Sledges—A Safe Return.

The disaster and suffering which characterised the termination of the Greely and *Polaris* expeditions did not tend to recommend Arctic exploration as a national enterprise to the Government of the United States. A vast amount of highly valuable information had been

obtained, not only by these expeditions, but also by the expedition sent out by the British Government under the command of Sir George Nares. And, in addition to the information, a further knowledge had been gained, the knowledge that the same spirit of indomitable pluck, the same tireless energy, and the same loyalty and devotion to duty dominated both branches of the great English-speaking race. The magnificent heroism displayed by the explorers from the *Alert* and *Discovery* found a parallel in the later experiences and exploits of the American expeditions, and both British and American Governments felt that, for a time at least, they were justified in [Pg 147] resting on the laurels their gallant sons had won.

But if the Governments were satisfied, the restless spirit of the race could not remain quiet while secrets still remained in the keeping of the frozen North. The Pole was still untouched, and, more than that, there were secrets to be wrested from localities not quite so remote.

The discoveries along the north coast of Greenland opened up the very interesting question whether the land did not extend right up to the Pole itself. As far as any one had penetrated to the north of the coast, land was still to be seen farther on; it was an open question whether this great ice-covered country was an island, with its northern shores swept by the Polar ice-floes, or whether it extended almost to the dimensions of a continent in the Polar region.

The problem appealed strongly to two explorers whose names, by reason of their exploits during recent years, have become familiar. They are Nansen and Peary. The former, by his dash for the Pole, during which he surpassed all previous records of the "farthest North," has dwarfed his Greenland performances; the latter, by his journey of 1300 miles over the ice-crowned interior of Greenland, decided the insular character of the country. It is that journey which forms the subject of this chapter.

Lieutenant Robert E. Peary, an officer in the engineering department of the United States Navy, [Pg 148] failing to obtain Government support for his scheme of an overland journey to the northern coast of Greenland, was supported by the Philadelphia Academy of National Science. The expedition was necessarily small, but that did not affect its utility. It was, moreover, unique, by the inclusion of Lieutenant Peary's wife as one of its members; the account which she has given of her sojourn in high latitudes is one of the most interesting of books on the Arctic regions.

The party left New York on June 6, 1891, on board the steamer *Kite*, for Whale Sound, on the north-west coast of Greenland. The voyage was satisfactory in every way until June 24, when an unfortunate accident befell the leader.

The *Kite* had encountered some ice which was heavy enough to check her progress, and, to get through it, the captain had to ram his ship. This necessitated a constant change from going ahead to going astern, and, as there was a good deal of loose ice floating about, the rudder frequently came into collision with it when the vessel was backing. Lieutenant Peary, who was on deck during one of these manœuvres, went over to the wheelhouse to see how the rudder was bearing the strain. As he stood behind the wheelhouse, the rudder struck a heavy piece of ice and was forcibly jerked over, the tiller, as it swung, catching Lieutenant Peary by the leg and pinning him against the wall of the house. There was no escape from the position, and the pressure of the [Pg 149] tiller gradually increased until the bone of the leg snapped.

The doctor, who formed one of the party, immediately set the limb; but the sufferer refused to return home, and when, a few days later, the *Kite* reached McCormick Bay, he was carried ashore strapped to a plank.

The material for a comfortably-sized house was part of the outfit of the expedition, and this was in course of erection the day that Lieutenant Peary was landed. For the accommodation of himself and wife, a tent was put up behind the half-completed house, and, as a high wind arose, the remainder of the party returned on board the *Kite*.

As the hours passed away the wind became stronger. The tent swayed to and fro, and Mrs. Peary, as she sat beside her invalid and sleeping husband, realised what it was to be lonely and helpless. She and her husband were the only people on shore for miles; her husband was unable to move, and she was without even a revolver with which to defend herself. What, she asked herself, would be the result if a bear came into the tent? She could not make the people on board the *Kite* hear, and she was without a weapon. Throughout the stay in the North, Mrs. Peary proved herself not only to be a woman of strong nerve and self-reliance, but also an excellent shot with either gun, rifle, or revolver. It was, however, as much as she could stand when her anxious ears caught the [Pg 150] sound of heavy breathing outside the tent.

For a time she sat still, fearing to disturb her husband, until the continuance of the sound compelled her to look out. A school of white whales were playing close inshore, and it was the noise of their blowing, softened by the wind, which had so disturbed her. But so self-possessed was she over it that her husband did not know till long afterwards the anxiety she had experienced during the first night she spent on the Greenland shore.

The following day rapid progress was made with the house, and some of the party stayed on shore for the night, so that there was always some one within call of the invalid's tent until the house was completed and he was removed into it. By that time the *Kite* had started home again, and the little party of seven were left to make all their arrangements for the winter.

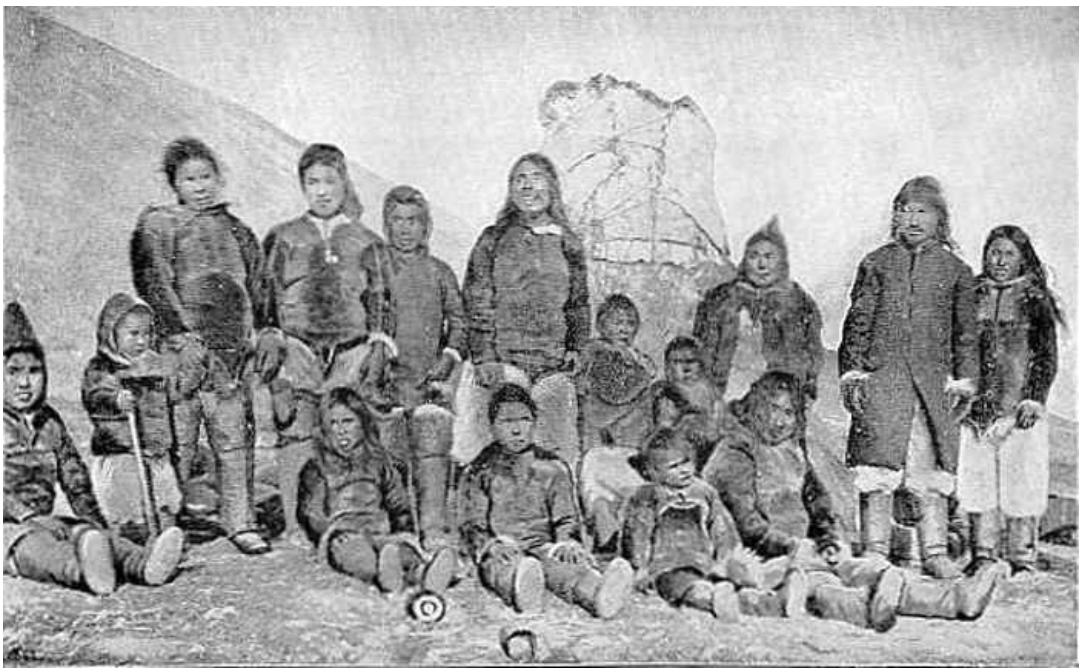
They had determined to rely entirely upon their own exertions for the supply of meat for the winter and also to obtain their fur clothing on the spot, killing the animals necessary for the

material and engaging some of the local Eskimo to make up the suits. Deer would give both meat and fur, and as there was every prospect of the neighbourhood affording them in plenty, as soon as the house was up and the stores packed, the majority started away in search of game.

The spot where they were landed, and where they had erected their camp, was on a verdure-covered slope lying between the sea and the high range of bluff hills which towered about 1000 feet over them. In the spring the ground was covered with grass and flowers; the bay in front was full of seal, walrus, whales, and other marine inhabitants, and along the hills behind experience showed that game was present in abundance. The Etah Eskimo, the most northerly people in existence, lived their quaint, out-of-the-world lives along the shores of the bay and neighbouring inlets, and, as soon as the camp was settled, they were kept busily employed in the making of fur garments, proving themselves docile and peaceful. It was often difficult for the members of the expedition to realise that the site of their camp, with the abundance of food to be had, was only from fifty to eighty miles from the spots where the castaways of the *Polaris* suffered so acutely and the members of the Greely expedition slowly starved, many of them to death. For more than a year the little party of seven lived in good health, without a suggestion of scurvy making its appearance and with only one fatality, which, moreover, was accidental. [Pg 151]

The first hunting expedition was in search of deer, and everybody took part in it except the leader, who was still crippled by his injured leg and confined to his room, and his wife. For two or three days the hunters were away, for they were fortunate in discovering a herd of deer which they followed until all were bagged. Then, with as many as they could convey, leaving the others to be fetched later, they set out for the camp. Their approach was duly signalled, and upon hearing that they were returning laden, Lieutenant Peary, for the first time, hobbled out of the house on crutches. As they came up he rested on one leg and his crutches, while he photographed them and their trophies, after which the double occasion was celebrated by a banquet in which venison played an important part. [Pg 152]

The deer skins were very important additions to the stock of material from which the winter clothing was to be made, but other varieties were needed, especially of the marine animals, as well as some native tailors to fashion them into coats, hoods, mittens, and all the other articles of Arctic wear. A boat party was therefore despatched along the shores of Inglefield Gulf, to spy out the localities where walrus was to be found, and to induce some of the natives of a village, seen from the *Kite*, to come over to the camp and sew the new garments.



GROUP OF SMITH SOUND ESKIMO.

The most northerly inhabitants of the world. Lieut. Peary records that the tribe numbered 253 on September 1st, 1895. Between that date and August 1, 1896, an epidemic of influenza had reduced them to 229. In August 1897, they numbered 234.

The party was successful in both instances, for a number of walrus were seen and an Eskimo family came back by the boat. The "huskies" consisted of a man, his wife, and two little children, and they moved with all their belongings. They were little people, under five feet in height and almost as broad as they were long, clad in fur jumpers and short breeches with sealskin boots reaching over their knees. The costume of both adults was very similar, the only practical difference being in the tunic or jumper, that of the woman having the hood longer and deeper for the accommodation of her infant. They had broad, good-natured faces, not especially handsome nor intelligent in appearance, but distinctly dirty. In fact, the use of water, other than for drinking, did not appear to be known to the primitive people, and it was very much a question whether they had ever tried the experiment of a wash. Once Mrs. Peary was tempted to give one of the little ones a bath, and she records how intensely amazed it was at being put into the water, although it was more than two years old. Surviving the shock, however, it manifested its pleasure [Pg 153]

by lustily kicking and splashing. Perhaps later it enjoyed a well-merited honour amongst its own people as the only one of the tribe who ever passed through the extraordinary ordeal of soap and water.

In consequence of their innocence of water as a cleansing medium, the "huskies," as the Peary party affectionately termed them, had two very distinguishing characteristics not entirely pleasing to more civilised people. They carried around with them a distinctly impressive aroma, and also thriving colonies of what are politely termed parasites.

In the matter of clothes they carry their wardrobes on their backs. Fur garments do not wear out very rapidly, and, when a "husky" is full grown, the suit of clothes, made in honour of the event, remains in constant wear until one of two things happens. If the man kills a bear, he has a costume made of the skin and discards the ordinary sealskin suit for it. If he does not kill a bear, he wears the sealskin suit until it no longer keeps him warm, when he gets another. In their snow houses during the winter and storms, if the temperature is too warm for them in their thick clothing, they take the clothing off; being a primitive people, their manners are as simple as their minds. [Pg 154]

The first arrivals at the Peary camp were, however, very useful people. There being no trees in this far northern region, and wood, consequently, being one of their most valued treasures, they were for some time unable to comprehend how so much timber had been acquired to build the house. When they saw a fire made in the stove of refuse bits of wood they were still more amazed. Never before had they seen so much fire all at once, and the man, growing curious, kept on feeling the stove to see what the effect would be. When it was hot enough to burn his hand he developed a wholesome respect for it, and preferred to regard the, to him, uncanny object from a distance.

The problem of how the sewing was to be done was rather a difficult one to the white people for a time. To allow the furs to be taken into the Eskimo tent was to invite the introduction of an insect population of which it would be impossible to get rid later. On the other hand, to allow the huskies to enter the house too frequently was equally dangerous from the sanitary point of view. A compromise was effected, by the Eskimo woman doing the sewing near the door of the house with some one always keeping an eye on her. Later on, when it was found that little danger existed from the spread of insects if reasonable care were taken, the workers sat inside the house. They were fairly deft in handling the needle, and the suits they made for the party were all excellent and serviceable. These were made on the native pattern, and the experience of Lieutenant Peary and his comrade Astrup in their journey over the great ice-cap proved that the native pattern was the best. [Pg 155]

When the woman was set to work, a boat expedition in search of walrus was organised, with the Eskimo as guide, Lieutenant Peary and his wife also going. They had not proceeded very many miles up Inglefield Gulf before a light breeze when they saw, on a floating piece of ice, a dozen or so of the animals huddled together apparently asleep. Sailing gently towards them, every one with a rifle ready, a sudden puff of wind sent the boat ahead quicker and farther than was intended, and it struck the ice. The walrus, never having seen a sailing boat before, looked round at it without paying any more attention than if it had been another piece of ice. But the sight of so many valuable creatures within reach of his harpoon was too much for the little Eskimo, and he buried the weapon into the nearest. [Pg 156]

At once the attitude of the walrus changed. The wounded member of the tribe tried to escape, bellowing in its pain, and the rest slid off the ice into the water and surrounded the boat. Others from neighbouring ice patches charged rapidly on to the scene, and the situation of the boat and its occupants was dangerous in the extreme. The poor Eskimo, his face showing the terror he felt, crouched down in the boat, evidently expecting to be annihilated by the furious animals that surged round. As they came up to the boat, they tried to get their great powerful tusks over the gunwales, and, had one succeeded in doing so, there would have been slight hopes of any one escaping. Had the boat been capsized, no one could possibly have survived, and to keep the angry crowd off was no easy matter.

All around they swarmed, and not less than 250 were estimated to be engaged in the attack. Lieutenant Peary, with his injured leg, sat in the stern of the boat, firing at them, and the other white men also kept up a fusillade, Mrs. Peary, again giving evidence of her strong nerve and courage, sitting beside her husband and loading the weapons as soon as they were emptied. The walrus came on in bunches to the attack, and, immediately they were fired at, all those nearest to the boat leaped out of the water, and then plunged out of sight. There was always the danger of one of the huge creatures rising under the boat, and so capsizing it; but the occupants had no time to think of this. Directly one batch jumped and disappeared, another batch hastened forward to greet the volley of bullets in the same way as the others, and be in turn succeeded by another batch! [Pg 157]

The boat was meanwhile gradually approaching the shore, and as the water became more shallow the walrus exhibited less desire to come to close quarters, until, at last, the adventurers found that they had beaten off the last of the swarm. The main body had retreated far up the gulf, only a few remaining near. Several of those which had been shot, however, were floating on the surface of the water, and it was decided to go back and secure them, even at the risk of another attack. Already some of them were sinking, and many must have gone down while the fight was in progress. There was a necessity for haste if any of the slain were to be secured, and with rifles loaded and ready for a fresh attack, the boat was headed towards the floating carcases.

The operation of securing them was performed without any interruption from the survivors, and a [Pg 158] run was then made for the shore, where the Eskimo said a lot of seal-skins were "cached." This is the term used in the Arctic regions to denote the local method of storing food or possessions. A space is hollowed out in the ground, which, even in the summer time, is frozen hard a few feet below the surface. The articles to be stored having been placed in the space, it is covered over with stones, and the "cache" is completed. Throughout the winter the contents become frozen into a solid mass, which, protected by the stones or other covering, does not thaw out during the short summer, and so remains in a good state of preservation for an almost indefinite period.

Occasionally the "cache" fails to preserve the articles of food entirely in that state which by the European is termed "fresh"; but as they rarely have recourse to "cached" provisions, it does not matter very much. The Eskimo, who constantly preserves his winter supplies in this manner, has, happily for himself, easier notions about the state and quality of his food. This was brought home to the party very forcibly. They had visited several "caches," and obtained enough seal-skin for their purpose, and, having enjoyed some refreshment, were considering their return. The Eskimo, Ikwa, then told them that, as all the flesh at the camp was recently killed, he and his family did not like it. There was, he said, a fine seal cached in the neighbourhood, which would form a [Pg 159] delicious store for him and his family, and if the leader allowed him to move it to the boat, and convey it to the encampment, he would be prepared to yield some of it to the members of the party for their own special enjoyment. The seal was a beauty, he said, and just in the very pink of condition. The necessary permission having been given, Ikwa hurried away for his treasure.

Shortly after, the members of the party noticed a strange penetrating odour in the air which they at first attributed to the flayed walrus. It steadily increased, until they were unable to tolerate it, and started out to seek the cause. As they emerged from under the shelter of the jutting rock where they had been resting, they descried the little Eskimo staggering towards them under the burden of a seal almost as large as himself. The creature had been "cached" about two years, and was in such a state that gentles fell from it at every step the man took, and, as Mrs. Peary recorded in her diary, both the sight and the scent of it overpowered the white people. But to Ikwa it was just in good condition for eating, and he was especially indignant when he was made to relinquish it. His clothes, however, would not part with the odour, and for many days the members of the expedition had reason to remember that Eskimo like their game high.

As the time passed, and winter approached, every one was kept busy preparing for the long dark [Pg 160] night, and for the journey over the ice-cap which was to be undertaken directly spring began. Several families of Eskimo were now residing near the encampment, the women mostly engaged in making winter fur garments for the members of the expedition, and the men in hunting. As dogs were required for the sledging expedition, constant bartering went on between the Eskimo and the white men, and the latter undertook occasional journeys to localities where other members of the tribe were encamped.

A great deal of very interesting information was thus derived about the natives, who are, as has been said, the most northerly living people in the world. Mrs. Peary, as the first white woman they had ever seen, was a particular object of attention. As their custom is for men and women to dress very much alike, they could not quite understand Mrs. Peary's costume, and when the first arrivals saw her and Lieutenant Peary together, they looked from one to the other, and ultimately had to ask which of the two was the white woman.

TWO NORTH GREENLAND HUNTERS.

The tribe did not number 300 in all; they held no communication with the Eskimo farther south, and, except for the occasional visit of a sealer or a whaler, knew nothing of the outer world. None had ever seen a tree growing, nor had they ever penetrated over the ridge of land which lay back from the coast, and over which glimpses were caught of the great ice-cap. The latter, they said, [Pg 161] was where the Eskimo went when they died, and if any man attempted to go so far the spirits would get hold of him and keep him there. They consequently warned Lieutenant Peary against venturing. There was no seal up there; no bear; no deer; only ice and snow and spirits, so what reason had a man for going?

Their belongings were extremely simple. A kayak, a sledge, one or two dogs, a tent made of walrus-hide or seal-skin, some weapons, and a stone lamp, comprised, with the clothes they wore, their property. Wood was the most valuable article they knew, because they could use it for so many purposes, and had so little of it. The possession of knives and needles was greatly desired; but scissors did not appeal to them, since what they could not cut with a knife they could bite with their close even teeth. Money had neither a suggestion nor a use with them; trade, if carried on at all, was merely the bartering of one article for another.

The animals they liked best were dogs and seals; the former being their beast of burden and constant companion, the latter the provider of food, raiment, covering, and light. Every seal killed belonged to the man who killed it, but the rules of the tribe required that all larger animals should be shared among the members in the neighbourhood; the skin of a bear, however, remaining in the possession of the man who secured it. But so unsophisticated and easy-going are [Pg 162] the contented little people that individual property scarcely exists with them; every one is ready and willing to share what he has with another if need be. The articles borrowed, however, are always returned, or made good if broken or lost. No one can either read or write; the boys are taught how to hunt, how to manage the kayak and sledge, and how to make and use the weapons of the chase, while the girls are taught how to sew the fur garments, and keep the stone lamp burning with blubber and moss, so as to prepare the drinking water and the frizzled seal flesh they eat. For the rest, their chief desire is to live as happily as they can, and this, according to those who have been amongst them, they manage to do merrily and well.

During the visits paid to the different encampments by Lieutenant Peary and his wife, about a score of dogs were obtained, a number which would be sufficient to carry out the work of the ensuing spring. They were usually obtained in exchange for needles and knives, but the purpose for which they were needed always formed a subject of wonder to the unambitious "huskies."

By the time that a return was made to the house—Redcliff, as the explorers named it—the season

was well advanced towards winter. The roof and sides were all covered with walrus hide, and moss, gathered in the early autumn, was stuffed into any crevice through which the cold wind might find a way. The drifting snow soon piled up round the walls and over the roof, and the extra covering added to the warmth and comfort of those within. Fur clothing was now worn generally, and the little party, keeping in good health and spirits, managed to pass the gloomy period of winter without anything to mar their contentment. [Pg 163]

Christmas they celebrated in proper form by having a sumptuous dinner, the menu of which, preserved by Mrs. Peary, is worthy of being quoted, as showing what can be done in a place where shops are unknown and darkness reigns at midday. The feast consisted of salmon, rabbit pie and green peas, venison with cranberry sauce, corn and tomatoes, plum-pudding and brandy sauce, apricot pie, pears, sweets, nuts, raisins, and coffee: a very creditable repast to be put on the table of an Arctic residence.

When every one had satisfied the demands of appetite, the table was cleared, and then re-spread for the benefit of the "huskies," who were bidden to partake of Christmas fare. A somewhat different assortment was prepared for the visitors, the dishes consisting of milk punch, venison stew, cranberry tart, biscuits, sweets, raisins, and coffee. This was certainly a variation to their ordinary food of seal or walrus flesh and water, and they showed their appreciation of it by leaving no crumbs and sticking to their seats until, at half-past ten, they were gently told that it was time they went home. Then they left, but the next day they came again, and were perhaps not the first who, having enjoyed a hearty Christmas dinner, felt disposed to complain that Christmas can only come once a year. [Pg 164]

At the first approach of spring the dogs were given plenty of exercise in the sledges, and by the middle of April all was ready for the great journey over the ice-cap. Lieutenant Peary had quite recovered from the injury to his leg, and was impatient to be off. The plan of operations was for himself and a young Norwegian, named Astrup, to push on with one sledge over the unknown interior, but for the first part of the journey a supporting party and sledge accompanied them.

April 30 saw them start from the house towards the bluff range which ran along the coast. The two sledges, each with a team of ten dogs, were laden with supplies and scientific instruments. Mrs. Peary, who was staying behind at the house, watched them slowly go out of sight, the Eskimo women consoling her with the opinion that none of the party would ever come back. The return of the supporting sledge a few weeks later was rather a blow to the prophecy, but they tried to make up for the first mistake by asserting their confidence that the other sledge was doomed.

The two parties kept together until the coastal range was surmounted, and the beginning of the ice-cap was reached. Here the sledge which was to do the great journey was laden with a full load, and the two explorers started forward, Lieutenant Peary leading the way with a staff to which was attached a silk banner—the Stars and Stripes—worked by Mrs. Peary. [Pg 165]

The first of the ice-cap was a stretch of some fifteen miles of ice, formed into enormous dome-shaped masses. They toiled up one side but travelled easily down the other, and so on, up and down, until they had attained an altitude of nearly 9000 feet above the sea-level, when they found that they were on a vast expanse of snow. The white unbroken surface stretched away as far as the eye could reach, unbroken by a ridge or rise, everywhere flat, white and immense. This was the great ice-cap, the frozen covering of the interior of Greenland, the unknown region where no man had yet set foot.

But it was a mistake to term it an ice-cap. They found it to be rather a desert, a Sahara with dry drifting snow instead of the dry burning sand. And, like Sahara, it had its days of storm, when the snow whirled in clouds just as the sand rises before the scorching blast of the simoom. Very wonderful was the first experience of this Greenland dust-storm. The sky overhead was filled with dull grey clouds, heavy and opaque, and the gloom spread all around, so that whichever way one looked there was the same impenetrable veil of grey gloomy haze. The snow lost its dazzling whiteness and took instead the tint of the gloom of the surrounding atmosphere. Then the wind came, at first in fitful gusts but later growing into a steady blow, the opening squalls lifting the dry surface snow and whirling it up in the air. The steady breeze caught it and carried it along in a constantly moving stream some two feet deep, and it was then that the effect of the storm was most pronounced. The drifting particles of snow made a curious rustling noise as they moved, and as they whirled round the travellers' legs the feet were hidden beneath the dense moving veil. As a result, it was as though one were walking on nothing and going nowhere, for the grey gloom all around made one unconscious of either direction or space, and the moving snow prevented one seeing the feet or realising that there was anything solid under them. [Pg 166]

The steady hum of the drifting snow, together with its movement, made the brain dizzy, and the two explorers generally found it necessary to form a camp when such a storm came on, the snow soon piling up against their shelter tent and effectually protecting them from the wind. Then, when the breeze had died away and the snow ceased moving, they were able to dig out their sledge and proceed.

A distinct contrast to these stormy days was given by the period of clear sunshine. Then the sky, innocent of a cloud, was a wonderful blue vault overhead, while the snow-covered plateau stretched away on all sides until it was lost in the distance of the horizon. The wonderfully clear air enabled the explorers to see a great distance ahead. At the end of the second day's march after reaching this great snow desert, they found that the surface was gradually sloping north [Pg 167]

and south. They were on the dividing ridge and, as they passed over on to the downward slope, their progress was naturally at a more rapid rate. A storm, such as has been described, accompanied by falling snow, overtook them, and for three days they had to stay in their shelter. When at length the weather moderated and they were able to get out again they discovered, before resuming the journey, that the dogs meanwhile had eaten six pounds of cranberry jam and the foot off one of the sleeping-bags—a fairly good example of a dog's appetite during a snowstorm.

On May 31 in magnificently clear weather they looked out upon a scene on which no white man had ever yet gazed. In his description of the journey the leader wrote: "We looked down into the basin of the Petermann Glacier, the greatest amphitheatre of snow and rugged ice that human eye has ever seen." Away beyond it, a range of black mountains towered in dome-shaped hills, and they made their camp with the expectation of being able to see more of the distant range at the end of another march. But by the time they were able to resume their march a thick fog had [Pg 168] come into the air, and for three days they could only see the snow at their feet. They directed their course entirely by compass, but as they were unable to see long distances ahead, they were unprepared for a change in the surface. Before they could avoid it, they found themselves amongst rough ice and open crevices. They were getting on to the Sherard Osborne Glacier, and, in the misty weather they were experiencing, it was difficult to get back on to the smooth ice again. Over a fortnight was spent in getting beyond this rough ground, and at length, on the weather clearing, they found that straight ahead of them a range of hills showed along the horizon above the ice-cap. The appearance of the hills directly in their path decided them to turn their course from due east to south-east, and they were soon able to make out the line of a deep channel running from the north-east to the south-west.

On July 1, after fifty-seven days of travel, they came to the limits of the ice-cap and stood, silent and amazed, looking down from the summit of the snow desert across a wide open plain covered with vegetation, with here and there a snow drift showing white, and with herds of musk oxen contentedly grazing over it. Such a discovery was absolutely so unexpected that at first they could scarcely believe their eyes. There was no sign of any human habitation on the land, and for all that could be learned to the contrary, they were the first human beings who had ever trodden [Pg 169] upon that plain, on which the yellow Arctic poppies were waving in bloom and over which the drone of the humble bee sounded, though for hundreds of miles around it the accumulated snow of centuries lay frozen into the great mysterious snow-cap and its glaciers.

Having proved that they really were not dreaming, they shot a musk ox, which they used for their own and their dogs' refreshment. Then they stacked their stores and set out with reduced loads across the plain. They walked for four days, exploring, surveying, and examining; and on the fourth of July, the anniversary of the Declaration of Independence by the United States, they stood on the summit of a magnificent range of cliffs, 3500 feet high, overlooking a large bay, which, in honour of the date, they named Independence Bay.

The latitude was nearly 82° N., and Lieutenant Peary, writing of the discovery, says: "It was almost impossible for us to believe that we were standing on the northern shore of Greenland as we gazed from the summit of this precipitous cliff with the most brilliant sunshine all about us, with yellow poppies growing between the rocks around our feet and a herd of musk oxen in the valley behind us. In that valley we had also found the dandelion in bloom and had heard the heavy drone and seen the bullet-like flight of the humble bee."

For a week the two remained in this northern valley, surveying and making observations and [Pg 170] finding it difficult to believe that a distance of 600 miles of frozen snow separated them from the nearest living people. Not a vestige of a human habitation was found, and nothing to show that man had ever been there before. At the end of the week, with a good supply of fresh meat from the musk oxen and a collection of specimens of plants and insects packed on the sledges, the return journey was commenced. Both dogs and men were invigorated by the rest they had had, and they were able to travel homewards at the rate of thirty miles a day over the smooth surface of the ice-cap.

They carefully adhered to a recognised routine of work. When they had travelled the regulation number of hours they halted for their rest. The one whose turn it was to prepare the supper set to work to arrange what they termed their kitchen, while the other attended to the dogs, feeding them and removing them from their harness. The "kitchen" was constructed by removing snow in blocks from a space eight feet long by three feet wide by eighteen inches deep. The snow-blocks were built up along one side and half another, so as to form an angle presented towards that quarter from whence the wind was blowing. Over the top of this a canvas was stretched, forming a well-sheltered nook, in which the spirit stove was lighted and the meal prepared. For supper they had usually, half a pound of pemmican (a preparation of finely chopped lean meat with [Pg 171] raisins and wheaten flour), one cup of preserved milk, tea, and biscuits. The morning meal, or breakfast, consisted of pemmican, biscuits, two ounces of butter, and two cups of tea, and after travelling from four to six hours, they stopped for lunch, which consisted of more pemmican and tea.

As soon as supper was ready the two enjoyed it together, and very soon afterwards they crept into their sleeping-bags, the one who was acting as cook having also to keep an eye on the dogs, in order to prevent them making attacks on the stores. To obviate this, after the first few days, the dogs were usually tethered for the night.

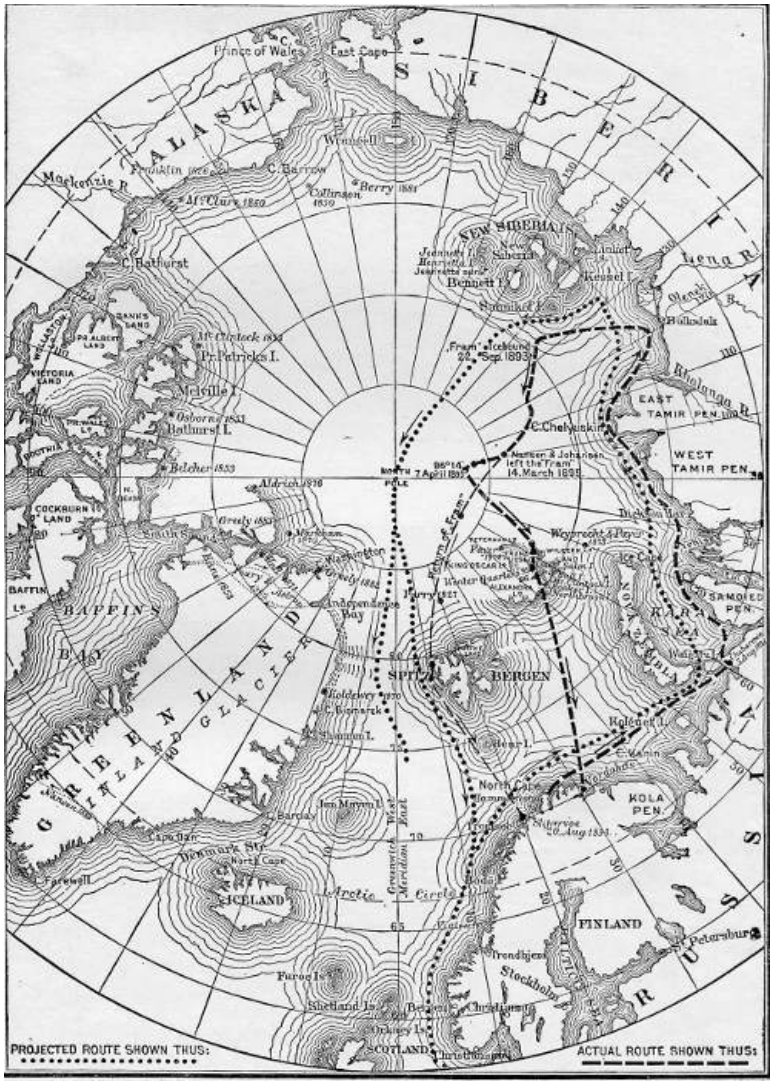
Occasionally, when the wind was favourable, sails were erected on the sledges and the progress

was then very easy and rapid; but when the wind was from the opposite direction both dogs and men had an arduous task. The return journey was accomplished with greater facility than the outward trip, and on August 8, as they reached the top of one of the dome-like formations near the coastal range, they saw, on the slope of the next dome, a party of men approaching. The Kite had meantime returned to Inglefield Gulf to take the expedition back to the United States, and several of those who had come up in her set out to meet the two explorers. By the time that the combined parties reached the shore, every one was on board the *Kite* waiting to welcome the two wanderers, whose enterprise had terminated so successfully, not the least delighted being Mrs. Peary, whose patience had been somewhat tried by the persistent way in which the "huskies" had foretold disaster to her husband. But all is well that ends well, and in his return, victorious, the long lonely hours were forgotten. [Pg 172]

CHAPTER VIII [Pg 173]
NANSEN AND THE *FRAM*

Nansen's Theories of Arctic Currents and Shipbuilding—His Theories adopted—The *Fram* built—A Start made—The Kara Sea reached—Good Hunting—The Ice Current reached—Frozen in—A Raid by a Bear—Will the *Fram* stand the Pressure?—Preparing for Calamity—A Conclusive Test—Causes of Ice Movements—Life on the *Fram*—Nansen and Johansen leave the *Fram*—They reach their "Farthest North"—Incidents of their Return Journey—Some Narrow Escapes—The Meeting with Jackson—Arrival of the *Fram*.

In 1879 the *Jeannette*, an American yacht commanded by Lieutenant de Long, of the United States Navy, was beset in the ice in latitude 71° 35' N. and longitude 175° 6' E. So firmly was she frozen that it was found impossible to liberate her, and on June 12, 1881, she was so badly crushed in a break up of the pack that she foundered. In the meantime she had drifted with the ice to 77° 15' N. latitude and 154° 59' E. longitude, a point to the north of the New Siberian Islands. In 1884 articles undoubtedly belonging to members of her crew were found in floating ice off the coast of Greenland.



MAP OF THE ARCTIC REGIONS SHOWING ROUTE OF NANSEN AND THE *FRAM*.

These facts caused a very great deal of discussion among Arctic explorers, and the general

opinion expressed was that a strong and steady current evidently flowed along the course taken first by the *Jeannette*, and secondly by the relics. To arrive at that conclusion was not very [Pg 174] difficult; to utilise the knowledge thus gained, and profit by it, was the point, and only one man in the world was possessed of the necessary amount of insight, backed up by intellect and courage, to enable him to do so. This man was Fridtjof Nansen.

As a student of Arctic phenomena, and as one who had crossed Greenland from east to west, the existence of this current was full of suggestive possibilities. It seemed to him that if a vessel were built of sufficient strength to withstand the pressure of the winter ice, and provisioned for a sufficiently long period, there was every chance of it drifting along the entire course of the current, perhaps to within a measurable distance of the Pole, and certainly well within that region which had hitherto been unexplored. The area affected by the current would have to be entered as near the outside edge as possible, so as to participate in the full sweep of its curve, and, in order to avoid the terrible crushing pressure of the winter ice, the vessel would have to be so built as to enable it to slip upwards from the ice, when the pressure became too severe, and rest always on the top.

On the publication of these views, they were not supported by the Arctic veterans. Some went so far as to characterise the whole scheme as being unworthy of serious consideration, while others, less overbearingly prejudiced, were aghast at the daring and audacity of the scheme. The [Pg 175] possibility of the drift passing over the route suggested by Nansen was not gainsaid by those whose close knowledge of Arctic problems, and desire for general information, made them more tolerant than the keen opponents of the scheme—the latter, strangely enough, being men whose own exploits had not been the most successful in Polar exploration. The hero of the *Alert* sledge journey admitted the feasibility of the drift theory, but shook his head at the idea of any ship withstanding the winter pressure of the great ice packs in the far North. A ship once caught and frozen in became part of the ice itself, and when the pressure crushed masses a hundred feet thick into minute fragments and powder, what chance would a vessel, held in such a mass, have of escaping?

But Nansen was not to be discouraged. He had the true insight of genius, that insight which gave him the confidence in his own idea and which needed something more than verbal reasons to overthrow it. His idea also recommended itself to a Norwegian shipbuilder, Mr. Colin Archer, who expressed his readiness to construct such a vessel as Nansen had described. The Norwegian Government also were impressed by the scheme and voted over £11,000 towards the cost of carrying it out, and other support being forthcoming, the intrepid explorer was at length able to take definite steps to prove or disprove his contention.

The building of the *Fram* was at once commenced. She was built of wood and of tremendous [Pg 176] strength, her beams and sides being of the utmost thickness, while on the outside of the hull not a single angle was allowed to remain. Every projection was carefully rounded off and smoothed, so that there should not be as much as half an inch protruding and capable of affording the ice a holding place. Even the keel was sacrificed to the general idea of avoiding possible holding places for the ice. The lines of the ship were necessarily different from those of the ordinary vessel. Her sides bulged outwards and the stern and stem sloped away, so that whichever way the ice exerted the pressure, the *Fram* would present a smooth surface to the ice, inclined in such a way that the tendency of the ice would be to get under it and so lift the vessel up. This did not improve her qualities as a sea boat, and the way in which she pitched, plunged, and rolled, whenever she came into a moving sea, tried the seafaring capacities of every one on board.

She was fitted with engines and a screw, and was rigged as a three-masted fore-and-aft schooner. Electric light was laid on all over her, the power being generated by a windmill when the engine was not working. Every available crevice was utilised for the storing of coals and provisions.

By the middle of June 1893 the thirteen men who formed the expedition had succeeded in finding a place for everything, though not without some difficulty, for the quantity of the stores which [Pg 177] had to be packed was enormous. By a delay in delivery, just as they were congratulating themselves that everything was stowed away, a shipment of dog biscuits arrived. The ship was full already, but the biscuits had to be stored somewhere, so one of the men wriggled right up into the bows, and between the beams and the ribs he packed away the troublesome late arrivals. Everything was at last on board and stored, and on June 24, 1893, the *Fram* started on her memorable journey.

Leaving North Cape, she headed for Kharbarova, on the Northern Siberian coast, and the point where the team of Siberian sledge dogs were to be taken on board. On July 29 she dropped anchor off the quaint little settlement and found the dogs duly waiting. A ship with coal ought also to have been there, but it did not arrive up to the time that the *Fram*, having shipped the dogs, was compelled to leave. She would soon be in the Kara Sea, where a year would have to be spent if she were caught in the ice. The season was passing rapidly, and no time could be lost if the Kara Sea were to be passed before winter set in, so the anchor was weighed and the *Fram* steamed away without her extra supply of coal.

On August 4 the Kara Sea was reached. The ice, although not heavy enough to prevent further progress, with the adverse currents caused considerable delays, and the crew utilised their enforced leisure by visiting the neighbouring land and laying in a store of fresh meat. They were [Pg 178] successful in obtaining reindeer venison and ducks, and it was here also that the first bear was killed.

It happened on the Kjellman Islands. The *Fram* had come to anchor under their shelter, when some one raised the cry that there were reindeer on the shore. Immediately a hunting party was formed, and eight of the members rowed ashore. They separated into couples and spread out in search of the deer, which, however, were extremely shy. Two of the hunters, failing to get near the herd, decided to sit down and wait until the other members succeeded in stalking round the deer and turning them back. Suddenly one of the two, looking round towards the shore, espied a bear coming towards them. They waited for him to come within easy range, when they fired together, striking him in the right foreleg. He turned back at once towards the shore, and another bullet in one of his hind-legs did not stop him. Fearing that he might escape, one of the two ran after him and managed to put a bullet in his shoulder, which brought him to the ground. The bear staggered to his feet again, and in turning towards his assailants presented his unwounded side to them, with the result that another bullet was discharged into it, and he fell to the ground unable to move; but to make certain that he was not "foxing," yet another bullet was put into his head.

The result of the day's shooting was excellent, the bag consisting of bear, deer, seal, and duck, [Pg 179] providing plenty of fresh meat for the members of the expedition, as well as a good supply of food for the dogs. Within a few days they were able to add to the larder by killing some walrus, a feat which was not achieved without some danger and loss.

The *Fram* had come to anchor in consequence of the ice lying rather thickly ahead, when a group of walrus was seen on a floating mass of ice. A boat was immediately lowered, and with one man armed with a harpoon in the bows, and Nansen armed with a rifle in the stern, it was cautiously rowed towards the listless walrus. They did not show any sign of life until the boat was close upon them, when the sentinel raised his head and looked towards the boat. When a number are basking, one is always on duty as a sentinel to give the alarm and warn the others of approaching danger. Directly those in the boat saw which was the sentinel, they kept a close watch upon him, remaining as still as possible when he raised his head and only urging the boat forward gently when he resumed his former lazy attitude. By very careful manœuvring they were able to creep close up to the ice. The sentinel again raised his head and looked at them, but as no one moved he seemed to be satisfied and lowered his head once more.

A sharp stroke of the oars drove the boat right on to the ice, and the man with the harpoon let [Pg 180] drive at the group. Due, perhaps, to the movement of the boat, his aim was too high, and instead of plunging into the great body of the nearest monster, the harpoon glanced off his back and over the backs of the others. They were roused at once and turned upon the boat, bellowing loudly. Nansen fired upon the leader, a bull with tremendous tusks, and he fell over, but the others did not stop. The boat was pushed off, and at the same moment Nansen shot a second bull. The remainder of the herd plunged into the water from off the ice and swam after the boat, rising up alongside it and attempting to drag it down with their huge tusks. For a time the fight was furious, but the three men were too strong, and those of the walrus that were not killed made off under water. The two shot on the ice were secured, but those shot in the water sank before they could be reached.

As the men were getting the two from the ice into the boat, an unfortunate lurch jerked the rifle Nansen had been using overboard. It was a favourite weapon which he was very loth to lose, and for hours efforts were made to drag it up, but without success. It was hopelessly lost, and the first brush with the walrus thus became memorable. A year or two later there was another adventure with them which was even more memorable, but many were to be slain by the explorers in the meantime, and many miles were to be covered before that adventure came to [Pg 181] pass.

On September 10 the *Fram* had made her way through the ice-encumbered sea as far as Cape Chelyuskin, the most northerly point of Europe. There was great rejoicing on board, for the fact that such a point had been reached meant that they would be in the region of the current before winter set in, and that, when the *Fram* became frozen in, it would be in the ice affected by the drift. A week later, the course was altered, and the *Fram* was headed for the North. The ice became heavier and closer as she advanced towards the limit of the ice-floes, and as the sun was sinking nearer and nearer the horizon, the cold became more intense at every mile. As long as there was open water ahead the energetic crew kept working their vessel so as to get her as high up as possible into the area affected by the current; but when they had passed the line which marks the limit of the floes, they soon found that further navigation was impossible. The *Fram* was soon fast in the ice and, with winter upon them, the crew made themselves and the ship as comfortable as they could.

The builder of the *Fram* had given attention not alone to the exterior of the vessel; he had also made the internal arrangements as complete as possible for the comfort of the explorers during the prolonged period they were to remain in the ice. Now that they were in the pack, they realised how well their comfort had been considered. For the matter of that, they had always [Pg 182] found their quarters cosy, even when the *Fram* displayed her capabilities of rolling and tossing. The main cabin, in which they lived, was always warm, and the passage-ways leading from it to the outside were so skilfully arranged that those on board did not experience the distressing moisture which was so troublesome on the *Alert* and *Discovery*. The electric light as a substitute for lamps was also an admirable innovation, for the interior of the cabin was always brightly lit without the air becoming heavy, as would have been the case with exposed lamps. A great deal of thought had also been given to ventilation, with the result that the cabins were never close.

Over the deck a large screen was erected, tent shape, and above it there was reared the windmill which drove the electric motor and generated the electricity for the lights. As the ship was to remain in the ice until it drifted out again, everything was made snug for a long stay. On the ice alongside various observatories were erected and scientific instruments placed to make complete records, and later, a row of comfortable kennels was made for the accommodation of the dogs.

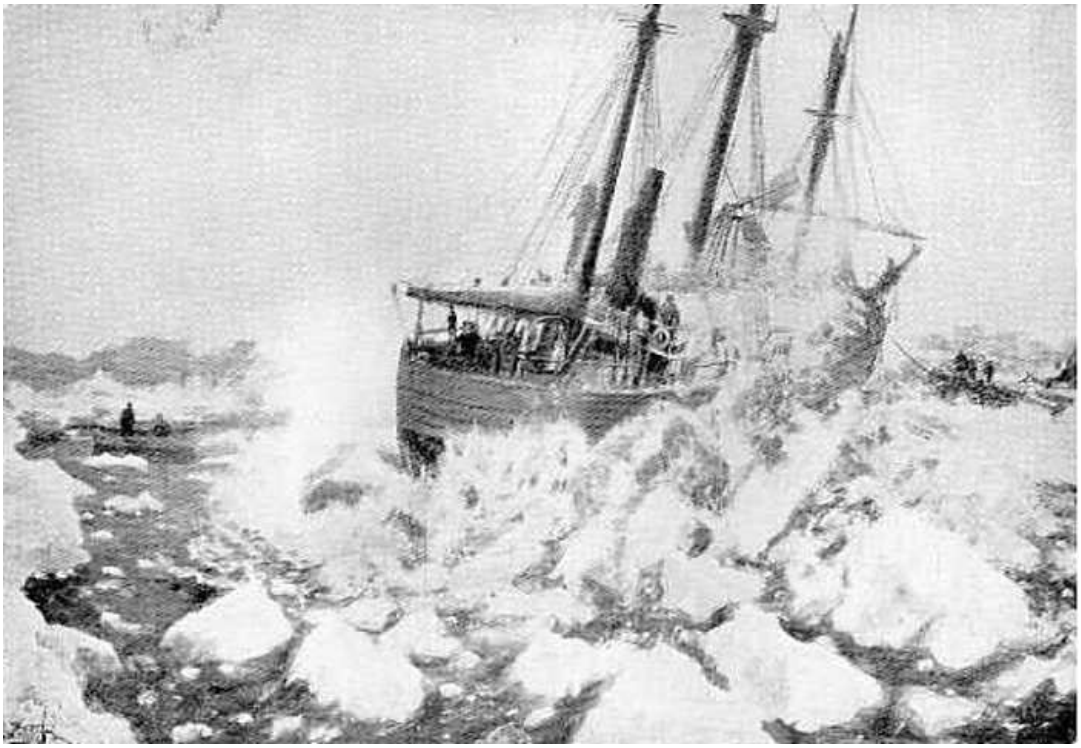
These animals at first had been somewhat troublesome. They were so savage that it was necessary to keep them all tied up on deck, and during the voyage along the coast they were frequently wet and miserable, and incessantly howling. Once, rope muzzles were made, and when [Pg 183] each dog was fitted they were allowed loose; but an Arctic dog requires something stronger than a rope to keep its jaws closed when let loose among a lot of other Arctic dogs. The result of the experiment was not a success, except from a dog-fight point of view; when at length the struggling, snarling, snapping pack were separated, they were tied up again to the deck until the ship was fast in the ice.

By that time they were somewhat reconciled to one another; when they had been allowed to have a scamper or two, with plenty of opportunity to find out who were the kings and who were not, they settled down into a big happy family, even making common cause when a stray bear came on board later in the winter.

This happened at a time when every one was below in the cabin. Each man took it in turn to look round the deck every now and again. The man whose watch it was had not long returned to the cabin when a tremendous hubbub started among the dogs. The watch returned on deck with a lamp, but failed to see any cause for the disturbance, and attributed it to a new election of a king or some other canine ceremony. Later it broke out once more, and a further inspection was made, when it was discovered that two dogs were missing.

The man on watch, carrying his lantern, and accompanied by another member of the crew, set out over the ice, following what appeared to be a track in the snow. They had not proceeded far [Pg 184] when they found themselves face to face with a bear. It was difficult to say which was the more surprised, the bear or the men; but as the latter had no weapon with them they decided that a return to the ship was the best course to pursue. They turned and started at a run, the man with the lantern, having heavier boots on, being the slower of the two. More than that, he was not so agile as his companion, and stumbled frequently. Once he went down full length, and when he regained his feet he was astounded to see in the dim twilight, and between himself and the ship, the form of the bear.

For a moment they stood looking at one another, the dogs at a respectable distance baying and howling. Then the bear advanced and made a snap at the man, nipping him in the thigh. The lantern was not a very heavy one, but it was all the man had with which to defend himself, and, swinging it round with all his strength, he brought it down on the bear's head. It made him let go his hold, and a few of the dogs rushing nearer to him caused him to turn towards them, thus giving the man a chance to resume his flight, which he immediately did.



THE *FRAM* IN THE ICE.

"The *Fram* was in 78° 50' N. latitude when she was first frozen in" for the beginning of the great drift.

By the time he was able to scramble up on to the vessel he found half of the crew tumbling out of the cabin with rifles. They ranged themselves along the side of the ship, and taking a steady aim

at the bear, which could be dimly seen in the twilight, all pulled their triggers. They had [Pg 185] forgotten, in the hurry of the moment, how well the firearms had been greased to prevent them rusting, and so the volley failed to fire a single shot. Meanwhile the dogs surrounded the bear, snarling and barking, but not going near enough to bite or get bitten. He looked wisely round the ring and then started off at a slouching walk, just as Nansen reached the deck with his rifle. His weapon did not misfire, and a bullet checked the bear's flight, and, some of the other guns now being effective, several more were put into him and laid him low. Subsequent search revealed the remains of the two dogs a little distance away from the *Fram*, whither they had been dragged by the bear.

The *Fram* was in 78° 50' N. latitude when she was first frozen in, and the observations for the next few days were watched with a good deal of interest, as every one was anxious to know whether they were in the drift, and at what rate they were travelling. A very great surprise was therefore experienced when it became known that instead of travelling, as they expected they would, in a north-westerly direction, they were going south-east. For several days they speculated whether they had misjudged the place where they would meet the north drift, and had, instead, become fast in ice which would carry them away, rather than towards their goal. It was a very unpleasant uncertainty, and when the discovery was made that the direction had [Pg 186] changed and the vessel was slowly but surely drifting northward, there was general rejoicing on board. The ice around the *Fram* was now over thirty feet in thickness, and, as it was constantly moving in the drift, so was it also subject to the pressure which made it heave and pile itself in great rugged broken masses. There was a constant creaking and groaning in the vast pack which made it evident that the pressure had begun. Throughout the winter it would continue, getting more and more severe as the cold became more intense. Would the *Fram* justify her designer and builder under the trial?

It was a very anxious question for those on board. One authority had said she would become so securely frozen in as to be, to all intents and purposes, a part of the ice body, and that then, if the ice immediately in her vicinity began to move and work, nothing could save her from being crushed into matchwood by the enormous pressure. Well, she was now frozen into such a mass, and frozen so firmly that she did not budge an inch when the groaning and creaking told of the straining that was going on. The surface of the ice, as far as the explorers could see, was constantly undergoing a change, as the force of the movement pressed great blocks up in one place, and ground them away in another. Jagged, rugged masses reared themselves up before the irresistible power, until they stood forty and fifty feet high. Sometimes they were forced up so [Pg 187] high that they overbalanced and crashed down upon the lower masses with the roar and rattle of thunder. And yet the *Fram* never moved.

Was the expert opinion going to be verified? Would the ship, held by the grip of the pack, be slowly crushed into fragments directly she was caught in the line of movement? It was evidently not impossible, and precautions were taken so as to insure escape if she were to be caught and crushed. All the boats were taken out on to the ice and filled with provisions; the dogs were put in kennels also on the ice where they would be free to escape, and every one was constantly on the alert for the first sign of the "nip."

At last it came. They were all at meals when the increased uproar of the moving ice told them that the movement was nearing the vessel. Then, for the first time, they heard the ominous sounds of creaking timber. The *Fram* was being "nipped."

Every one hurried out of the cabin to see to the boats and the dogs and the stores. When they reached the open they found that, close upon her port side, the ice was heaving and piling up into a great massive wall, while all around the noise of the fracturing and cracking of huge blocks was deafening. Slowly the wall rose in the air higher than the vessel's deck, higher than the bulwarks, and then it began steadily to glide towards her. For the moment it seemed that nothing could [Pg 188] save her, and that the stupendous weight of the gliding wall would soon grind her solid timbers into splinters, while part of it crashed over her decks and swept spars and everything away.

Silent the members of the crew stood on the ice on the starboard side watching and expecting every second to see the moving mass creep up to her and pulverise the bold little *Fram*, rendering them homeless and shipless. Some of the crushed ice, pushed forward in a huge roll like a frozen billow, was actually against her side and rising over the tent covering on the deck. The line of pressure had now reached exactly where she lay in the ice, and if she did not yield to it and slip from the grip that held her, she was doomed.

There was a sound of rending; a groaning crash; the *Fram* shivered till the breathless watchers thought they saw her spars tremble. Then, with a mighty wrench, she broke from the bonds that held her, and slowly rose from her nest in the ice, slipping upwards and away from the crushing force. A cheer burst from the lips of every one as she moved, for it meant not only the realisation of the hopes and ideals of those concerned in her construction and the complete vindication of their faith in her, but also the guarantee that the explorers were safely and securely housed, whatever might transpire.

When the movement in the ice had subsided, it was found that the *Fram* had slipped out of [Pg 189] harm's way in a marvellous manner. So firmly had she been frozen in that the spot from whence she had been driven contained a complete mould of her shape, every seam and mark being reproduced in the ice. This proved that the test had not only been a severe one, but conclusive as well, since the vessel had really been frozen so solid into a mass of ice as to be a part of the mass. Her escape was an overwhelming disproof of the adverse theories expressed against her, and an

entire victory for Nansen. There was now no question in any one's mind as to the result of the expedition; the *Fram*, having stood one test, would stand any, and nothing could stop her emerging in due course out on to the open sea again, having drifted very near to the Pole, if not quite up to it.

With a feeling of absolute security against further pressures and movements, the crew returned on board, and once more the cabin echoed to the light-hearted laughter which had been interrupted by the "nip." The hardy Norsemen who formed the party were as happy as they were brave, and throughout the years they were together there was nothing but good-humour and merriment among them. After the preliminary experience of how the *Fram* conducted herself during a "nip," little attention was paid to the ceaseless noise and roaring set up by the moving ice. Often she was forced up out of the line of movement, but the men in her cabin sat quiet; she [Pg 190] was able to "sail herself" without any help on that ice-locked sea.

The existence of this constant movement of the ice formed a very important discovery in Arctic knowledge. A brief explanation of the causes and the effects may make this clear, and, at the same time, show how it is that such huge mountains of ice are formed in the depth of winter when the Polar Sea was currently supposed to be frozen into one great silent moveless ice-field.

As winter sets in within the Arctic Circle, the sea which flows between the northern coasts of Europe, Asia, and America becomes covered with ice to the shores, thus forming an enormous field of ice some two thousand miles across. This, lying on the surface of the water, often having a thickness of from thirty to fifty feet, checks, but cannot control the tides. The ebb, on one hand, leaves vast tracks of ice, previously afloat, straining on the ground, cracking so as to form enormous fissures and weakening the surface resistance. On the other hand, the flood tide is welling and pressing against the overlying barrier of ice and lifting it up until it cracks and opens, the pressure underneath lifting the separated masses on to their neighbours, which in turn resist with all their weight and grind back upon the masses beyond, until with the turn of the tide the forced-up masses gravitate down again, tumbling, crashing, bounding and rebounding one upon the other. Meanwhile the ice lowered by the ebb tide has formed a restricted crust against which [Pg 191] the flood tide, backed up by the weight of the disturbed masses, uses its energy as a man uses his shoulder to lift a load. It is a battle between the resistance and the energy of nature, and usually energy wins along the line of the least resistance. Here, when once a point gives way, the accumulated energy concentrates. The "point" may be an area of ice a hundred miles square and fifty feet thick, and this tremendous mass, moved by the immeasurable force of the water pressure beneath it, grinds upon its surroundings and upon itself. Huge masses are pushed up on to the surface of the pack, crushing, grinding, and splintering as they go, their weight causing the under ice to bend and crack, and so add to the confusion of the struggle. Mass meets mass in a test of strength, and, failing to climb over one another, crush together, closer and higher, until there is a diminution of the pressure from below and they surge back, shattering themselves in the commotion and yet binding themselves into a single unit strong enough to resist the next onslaught of the tidal energy.

Along the shores, where the solid compactness of beetling cliffs holds back the sweep of the tide, the ice piles itself in mountainous ridges and chains. Those of greater bulk, taking the ground, offer a resistance against which the lesser masses can only strain and grind; but away out in the unfathomable depths of the Polar Sea there is no chance of the ice ever grounding. It is always [Pg 192] floating, and so always susceptible to the force of wind, tide, and current. Consequently it is always moving and feeling the pressure of the water below, of the grinding strain of the drift, and of the surface disturbances brought about by the constant displacement.

Any one who has seen a pond in winter, when the ice round the edge is rotten and when a breeze blows across it, is aware how the loose sheet which covers the centre creaks and groans as it is driven against the bank. The edge is shivered into small flakes before the resistance can stop the forward movement, and then the sheet moves back against the breeze until once more the power of the wind controls it, and there is a renewed straining along the bank, the previously broken flakes either being forced up on to the bank, or else under, or over, the edge of the sheet. Pieces a yard square slowly rise up on end before the pressure and, falling back, shiver into fragments which scurry across the smooth surface of the sheet until they are arrested and become frozen to the main surface. Everywhere when the forward movement is on there is noise of creaking, groaning, and cracking, and everywhere on the ice sheet there is evidence of the force exerted.

The Arctic Ocean may be likened to such a pond, only two thousand miles across and with ice upon its surface which never melts and is always being forced one way or the other by tide, wind, or current. The rugged, piled-up fragments of one winter's fight are smoothed over somewhat [Pg 193] later on by the heavy snows of spring and summer, or, more correctly speaking, of the period of daylight, for in this region the year is divided between the time when the sun is seen and when the sun is not seen. Along the shores of the continents which surround it, open water forms in the time of sunshine, and so there is room for the energy of the tides to escape. The currents can also, from time to time, break off great areas into floes and packs which drift away to the warmer South until they melt, leaving more room for the enormous stretch of tumbled ruggedness behind them to swing and drift in obedience to the driving currents. It will be remembered that it was at this period of the year when the *Alert* party travelled over the ice and found it so broken and rugged that barely a mile a day was covered. It was while this sort of ice was being formed that the *Fram* and her crew rested in the North, the vessel braving every nip by slipping upwards from the pressure; the crew, confident in her capabilities, living in merry good-humour in her cabin. What the confusion of the ice was like may be gathered from the opinion of those who saw

it when the return of the sun enabled them to do so, and also relieved the pressure. "Imagine a stormy sea, all broken waves and flying billows, suddenly frozen solid into ice, and you have some idea, on a small scale, of the piled-up hummocks on the pack."

[Pg 194] And so the first winter passed, the members of the expedition keeping not alone in good temper and spirits, but in good health also. There was always something doing; observations of temperature and ice movements to be taken, and records to be kept of the atmospheric and astronomical phenomena, on the scientific side; and on the every-day side of life, there were meals to get ready, stores to be overhauled and distributed, dogs to be fed, and a dozen other items to attend to. One of the happiest features of this expedition was the sincere and thorough good-fellowship which existed between all the members. Some of them took turn about in the cook's galley, each one trying to produce some dish which would come as a surprise to the mess and a variety to the usual bill of fare. Then they were excellently supplied with books to read and indoor games to fill in the odd hours of leisure. A newspaper was started, and although it was somewhat deficient in foreign news, there was plenty of local intelligence to keep it going until the return of the sun. Inside the cabin there was constantly heard the hearty laugh as some jest passed round, and under the illumination of the electric light and the spell of good-fellowship, but little heed was paid to the constant noise made outside in the darkness of the Arctic night by the ever-moving ice.

[Pg 195] When the sun's approach was heralded by a gradually increasing twilight, every one was full of curiosity to learn how far they had drifted in the ice during the winter, and whether the current had maintained its northerly direction. There was no chance of proving that during the long hours of darkness, and when, with the appearance of the sun above the horizon, observations were taken to verify calculations already made, with the result that a great advance to the North was shown, there was general rejoicing. If the direction were maintained during the coming summer and the following winter, it was not impossible that in a year's time the *Fram* might be drifting over the very Pole itself. The flag of Norway was run up to the masthead in honour of the occasion, and at the supper-table speeches were made foreshadowing the glory which would be won if the direction of the current were maintained.

[Pg 196] With the return of sunlight a great deal had to be done in the verification of the observations taken during the winter. As the weather became warmer it was possible to penetrate through the ice so as to enable them to take soundings as to the depth of the sea. Photographs of the ice-field were taken, so as to form companion pictures of what it was before and after the winter pressure had been exerted, and short expeditions by dog-sledge and snow-shoes (*ski*, as the Norwegian form is termed) were taken. A bear track was seen one day, but as Bruin did not seem desirous of approaching the ship, Captain Sverdrup, who commanded the vessel, set to work and devised a highly ingenious trap for him. The trap was fixed up on a hummock in the vicinity, where it could be watched from the *Fram*, but where it would be quiet enough to tempt the bear. A strong-smelling bait was fastened to it, so that when the bear seized the bait he would spring the jaws of the trap and get caught round the neck. Then, when all was ready, a constant watch was kept for Bruin to appear. He came when every one was about the ship, and as he was seen slouching over the hummocks, all eyes were turned upon him. Scenting the bait, he quickened his steps and went up to the trap, holding his head high up and sniffing for the bait. Having caught sight of it, he walked slowly round the trap until he came opposite the bait again, when he slowly rose on to his hind-legs and reached out for the morsel. Every one on board held their breath in anticipation of seeing him caught, but there was something about the concern which aroused his suspicions. Probably he had never seen such an animal before and doubted its quality, for he drew his head back, lowered himself on to all-fours, and slowly trotted away. The bear-trap was no success for killing bears, but it afforded excellent entertainment during this occasion, and formed a never-failing source of good-natured chaff afterwards.

[Pg 197] As the short summer passed, the drift turned persistently to the west, and in view of its continuing in that direction, preparations were made for a dash by sledge to the North in the following period of sunlight. The framework of two kayaks were on board, and these were brought out and put together on the ice alongside the vessel. When they were covered with skins, they were packed on two light sledges, and experiments were made as to the amount of provisions that could be stored on the sledges in addition. With a third sledge for stores, it was found that twenty-eight dogs would be able to drag enough food to last two men for one hundred days and the dogs thirty days, besides the kayaks, guns, ammunition, and other necessaries.

It was a critical venture to undertake, for once the sledge party left the ship and journeyed to the North, it was almost an absolute impossibility that they would be able to find the ship again. All they would be able to do was to go as far as they could and then turn back again, shaping their course to the Spitzbergen Islands, where it was anticipated the *Fram* would eventually drift. Whether they would be able to traverse the distance before their food gave out, and whether they would be able to replenish their provisions by shooting game, were two very important problems, and, in addition, there was also the question how they would be able to withstand the intense cold of the winter if compelled to spend it on the ice.

[Pg 198] As the darkness set in again, the discussion frequently turned to the prospects of the dash being successful. Nansen decided that he should be one of the two, selecting Lieutenant Hjalmar Johansen, of the Norwegian Navy, as his companion. Lieutenant Johansen had joined the expedition as stoker, subsequently acting as the meteorological assistant, and his choice by the leader was amply justified by results. The winter having passed without mishap, the reappearance of the sun verified the fears as to the direction of the drift. All through the winter

they had travelled more to the West than the North. The dash by sledge was imperative.

On March 14, 1895, the two adventurers, with their three sledges, two kayaks, and twenty-eight dogs, bade adieu to their comrades, who had come out a part of the way with them from the *Fram*, and started due north along the 100th parallel of East longitude. The *Fram* had already drifted to the 84th parallel of latitude, farther North than had yet been attained.

NANSEN AND JOHANSEN START ON THEIR DASH FOR THE POLE.

On March 14, 1895, they left the *Fram*, and returned to Norway in the *Windward* on August 13, 1895, having reached 86° 14' N. lat., the highest point, up to that time, attained by man.

For the first few days travelling was slow, heavy, and laborious, the ice being excessively rough and rugged. Time after time the two men had to haul the sledges, one after another, over the broken hummocks; but always at the end of each period of travel when they formed their camp, the Pole was nearer. On March 22 they reached 85° 10' N. lat. The ice they were journeying over now was not only rough but was constantly moving, the noise being incessant as the masses ground and strained against one another. But still they pushed on, taking such rest as they could [Pg 199] and working hard, when not in camp, from the moment they started until the moment the camp was made. On April 7 they had reached 86° 14' N. lat., the highest point ever, up to that time, attained by man, and only some two hundred miles from the Pole.

The ice was indescribably rugged and broken, necessitating the lifting of the sledges at almost every yard; the temperature averaged 40° below zero; their clothes were frozen into hard suits of mail, and their sleeping-bags were also frozen stiff. They had to sleep in the frozen bags out in the open, the temperature once being as low as 49° below zero. They had reached the "farthest North," and had learned enough to satisfy them that up to the Pole there was nothing but a continuation of the broken, rugged ice, straining and breaking under the pressure of the drift, and they decided to turn back, making towards the nearest land for winter quarters.

This was Franz Josef Land, lying to the south-west of where they were, and if they reached it in time to pass the winter on shore, they would be able, they believed, to resume their journey to Spitzbergen in the following summer. Arrived there, they did not anticipate any difficulty in getting home on board a Norwegian whaler, if the *Fram* had not meantime arrived.

They were now travelling in continual daylight, with a task before them every hour of surmounting the steep sides of hummocks. For hours they toiled on, making as much progress as [Pg 200] they could between the camps. The work they were performing was scarcely, one would think, likely to make them forget when it was time to sleep. And yet there was an occasion when for thirty-six hours they struggled on without a sleep. The food for the dogs was daily growing scarcer, and they were anxious to get on as far as possible before it was finished. When, therefore, they came upon a stretch of fairly smooth ice, they made the most of it, and only when they and their dogs were dead tired did they stop. It was their custom to always wind up their watches when they crept into their sleeping-bag; on this occasion when they took them from under their heavy clothing they discovered that both had stopped. In their anxiety to push forward they had forgotten to wind them up, and the springs had run down during the thirty-six hours. There was nothing to do but guess at what the time ought to be, and so they overcame this difficulty as they overcame all others, by making the best of it.

Their next trouble was the failure of the dog food. When the first dog died they kept him, for unless they fell in with a bear and killed it, the bodies of the weaker dogs was all that they could

give the stronger ones to keep them alive. At first the dogs turned away from the remains of their comrade, but soon their hunger overcame their scruples, and the ravenous creatures fought over [Pg 201] the carcase as soon as it was offered to them. Then came the necessity of killing one of them every now and again to feed the others; much as it went against their natures to do it, the explorers had to choose between it and death to themselves.

By the end of April they expected to reach land, but April passed and May passed, and still only the rugged ice was in view. One by one the dogs had to be sacrificed until only two remained. The weight of the sledges was also very considerably reduced by this time. The third sledge had been abandoned, and now each man, assisted by one dog, dragged a sledge on which rested his kayak, his *ski*, firearms, and other necessaries, as well as a moiety of the remaining stores. June came in and still no land was in sight, but the character of the ice was changing, though not very much for the better. It was not so rugged and hummocky, but it was frequently intersected by channels mostly full of floating pieces. It was useless taking to the kayaks to cross them, and often impossible to go round, so they adopted the method of jumping from piece to piece, and drawing their sledges after them. On June 22 they came upon a seal, which they succeeded in shooting and securing, a fact which was so memorable that they rested for a day, giving the dogs an ample supply of the meat. But the rest was scarcely idleness, for they were visited by three bears, all of which also fell under bullets. They now had abundance of food, both for themselves [Pg 202] and the dogs, to last a few weeks if they did not come in sight of the land. Two days later, however, they saw it, lying ahead of them, and they pushed on till a wide, open channel stopped them.

It was evident that the kayaks would have to be used in getting across, and they were taken from the sledges and examined. The result of the rough handling they had undergone in the journey over the ice was manifest in many a crack and hole in the skin-covering, but how to repair them was a question which taxed even the ingenuity and enterprise of the two intrepid Norsemen. They had enough skins to make patches, and twine with which to stitch them on. It was the making of some waterproof coating for the stitch-holes that puzzled them. They possessed a little train-oil, and by fixing up an arrangement over their spirit cooking stove, they obtained a little soot, which was mixed with the oil and used as paint. It was not a very artistic compound, but it was the best they could make, and it kept the water out. Then the kayaks were carefully fastened together by the *ski*, and upon them was laid the sledges and the stores.

When everything had been made fast, the explorers prepared to launch them. Johansen was behind Nansen, and stooping down, when he heard something moving at his back. Thinking it was only one of the dogs, he did not look round, and the next thing he knew was that something [Pg 203] hit him beside the head, so that, in his own words, "he saw fireworks." He fell forward, and immediately felt a heavy body upon him. He managed to turn partly round, and saw just above his face the head of a huge bear.

Nansen, ignorant of what had occurred, was bending over his end of the kayak, when he heard Johansen exclaim, "Get a gun." Glancing round, he saw his comrade lying under the bear, gripping its throat with both hands.

With everything securely tied to the kayaks, it was no easy matter to extricate the weapon, and Nansen was pulling and tugging at the cords to get them loose, so as to drag the rifle from its place, when he heard Johansen say, "You will have to hurry if you don't want to be too late."

The two dogs, all that were left of the twenty-eight, were standing snarling at the bear, and as Johansen spoke the one which always travelled with him approached nearer. The bear, having his attention for the moment distracted, stepped off Johansen, who immediately wriggled away and scrambled to his feet. Just as the bear turned on to the dog, Nansen wrenched a gun from the piled-up stores. Swinging round, he found the bear close beside him, and he pulled the first trigger he touched. It fired the barrel loaded with shot, but so near was the bear that the charge [Pg 204] entered behind the ear without having time to scatter, and brought him down dead between Nansen and Johansen.

The former was terribly afraid that his companion had been seriously injured, but the only mark the bear had left was a streak across the face where the dirt had been scraped away. As they had not washed their faces since they left the *Fram*, there was a thick covering of dirt on them, and the bear's claw, as it passed over Johansen's face, had scraped this away, leaving the white skin to show through. The bear was a mother, and had two cubs following it. The explorers took away the skin and some of the meat, the cubs meanwhile standing some distance away whining and growling. A shot was fired which wounded one, whereupon they made off, though only to return and follow the travellers in the distance, until a wide, long channel turned them back.

When the stores had been repacked, the two men, with the two dogs, entered the kayaks and paddled away down the channel, landing some hours later on the other side. The land they had first seen appeared to be the outlying point of an island, but growing mists obscured it for a day or so, and in the meantime they were somewhat puzzled to locate it. The fact that their watches had stopped earlier on the journey made them uncertain as to the exact locality they were in. The [Pg 205] direction in which they had noticed the land, and its appearance, also puzzled them, for there was no land marked on their map at the place where they believed they were. Possibly they might be near a hitherto undiscovered island, and with that thought uppermost in their minds they hastened forward as quickly as the broken character of the ice would allow. For the remainder of June, and the whole of July, they were battling against broken ice and irregular channels, and the distance covered was as nothing compared with the amount of toil experienced. The land,

whenever it appeared, was still unlike anything previously recorded, for it now seemed to be of considerable extent.

On August 6 they came upon a stretch of open water, on the other side of which they saw four islands, the heights of which were covered with glacier. They determined that they would winter on the shore of one of the four, and the kayaks were launched and laden with everything for the journey across the open water. It was more perilous than merely crossing channels in the ice, and when they had stored all their provisions, weapons, and other necessaries on the two frail little craft, they found that it would not be safe to carry the dogs as well. But they could not bring themselves to leave the faithful creatures on the ice; they elected rather to shoot them, scanty as their supply of ammunition was, and upon this decision they acted, each one shooting the dog [Pg 206] which had been the other's comrade. It was the saddest task that their difficulties had imposed upon them, and only the absolute necessity for their safety and the completion of their journey induced them to do it.

Sailing down the open water, they skirted along the coast of the strange land, on the lookout for a favourable spot to pitch their camp. As soon as they came to a place which recommended itself to them, they ran ashore and landed their kayaks and stores. The place was merely a barren, rocky coast, sheltered somewhat by the high ground behind, but without a trace of vegetation. On the beach one piece of drift-wood was found. In addition, there were plenty of small boulders, but such material was scarcely sufficient for the building of a hut in which to pass the dreary, cold, dark winter.

They overhauled their stores, and found they possessed two guns, some cartridges, a small hatchet, and two knives. With the hatchet, after considerable labour, they cut through the piece of drift-wood, and rejoiced in the possession of a suitable ridge-pole for the centre of the roof. Stones were collected and built into a low wall, within which all their property, except the guns, kayaks, and knives, was placed. Then, with the unstored articles, they set out along the coast and the floating ice to seek the wherewithal to complete the house.

Walrus was the first essential, for the hide would afford a covering for the roof, the blubber [Pg 207] would furnish fuel for the stove, and the meat would be useful as food. They spied two lying at the edge of a piece of ice, and approaching with the utmost caution, succeeded in shooting both. Their weight, however, as they fell over, caused them to slide from the ice, and they were in the water before the men could reach them. They secured the carcases, so as to prevent them from either sinking or drifting away, and essayed to haul them up on to the ice again so as to remove the hides and blubber. But the combined strength of the two men was insufficient to pull one of the huge carcases up on to the ice again, and they were compelled to strip the skin and blubber off as the walrus lay in the water. This necessitated their lying upon the floating carcases, and by the time the operation was completed, their already travel-stained clothing was rendered still more uncomfortable by being saturated with blood and fat.

Returning to the camp with their walrus hides and blubber, they explored the ridge lying behind the spot, and were fortunate in finding some moss, which they carefully gathered and carried away to assist in the building of the hut. The walls they had made of the stones allowed for an internal space of about ten feet long by not quite six feet wide. The crevices between the stones they filled in with moss and gravel, and then stretching the walrus hides over the ridge-pole, they [Pg 208] weighted them down with more stones. Over all of it they heaped snow and ice, and in order to avoid suffocation by the smoke of their blubber cooking stove, they constructed an ice-chimney, which, however, did not always carry off the smoke, while it frequently thawed at the base, and made the interior very draughty. Their guns, *ski*, and other articles and stores, they placed inside the hut, leaving the kayaks outside; and when everything was stored conveniently, they built a wall as a screen to keep the wind from out of the door, and hung a curtain of skins across the doorway. The floor of the hut was composed of stones which no ingenuity of theirs could render smooth or even, and upon it their sleeping-bag, the fur of which was almost worn entirely away, was stretched.

As soon as the hut was finished the two set out on foot in search of bears for winter provisions, and were happy in finding sufficient to enable them to fill their larder with enough meat to last them well into the following summer. This they stored on the top of the hut, and during the long winter night they often heard foxes over their heads gnawing at the frozen mass. They had not enough cartridges to waste on shooting them, and as there was more meat than they would want, they let the foxes feed in peace. Bear's meat, fried at night and boiled in the morning, was the only food they had; when the long dark night set in, with the temperature inside the hut barely [Pg 209] above freezing point, they lay in their sleeping-bag side by side, generally for twenty-two hours out of the twenty-four. The inside of the walrus-hide roof became covered with frost and ice, upon which the black from the blubber-fed stove settled; the stone floor was so uneven that they gave up trying to make it smooth, and lay as comfortably as they could under the circumstances, with their feet nearly touching one side of the hut and their heads the other. From November until the following March they were undisturbed, except by the sounds of the foxes on the roof and the howling of the wind, and a picturesque glimpse is given by Nansen of their life in his diary entry made on December 24, 1895, when the temperature inside the hut was 11° below zero.

"And this is Christmas Eve; cold and blowy out of doors, and cold and draughty indoors. How desolate it is here! We have never had such a Christmas before. The bells are now ringing in the Christmas festival at home; I can hear the sound of them swinging out through the air from the church towers. How beautiful it sounds! Now the candles are being lit on the Christmas trees,

and flocks of children are let in and dance round in exuberant glee. Must have a Christmas party for children when I get home. We, too, are keeping the festival in our little way. Johansen has turned his shirt, and has put the outer one inside. I have done the same, and have changed my [Pg 210] drawers as well, and put on the others which I had wrung out in warm water. And then I have washed myself in a quarter of a cup of warm water, using the discarded drawers as sponge and towel. I feel like a new being; my clothes do not stick to my body as much as they did. Then for supper we had fish 'gratin,' made of potted fish and Indian meal, with train-oil for butter—fried or boiled both equally dry—and as sweets we had bread fried in train-oil. To-morrow morning we are going to have chocolate and bread."

Where a turned shirt and a bath in a tea-cup formed the physical luxuries, and bread fried in train-oil and chocolate comprised the feast, in celebration of Christmas Day, it is not difficult to picture the amount of enjoyment available for every-day use, nor is it difficult to understand that they sighed even for a railway time-table to peruse. But yet they kept their health, their spirits, and their tempers. The rough stones under their sleeping-bag seem to have been the only thing they could not turn into a jest. When one snored too loudly to allow the other to sleep, it was only necessary for the victim to move; they lay so close together for warmth that a movement was equal to a dig in the back, and that meant waking the snorer by changing his position on the knobbly boulders from ease to discomfort.

At length the approach of the sun became manifest by the gradually brightening twilight, and the [Pg 211] arrival of a flock of little auks reminded them that spring was at hand. They celebrated the occasion by boiling their clothes, one article at a time, in the only pot they possessed, and then scraping the grease and dirt from them by the aid of a knife, so as to render them soft enough for travelling, as it was beyond the question to get them clean. The sooty smoke from the winter's cooking had thoroughly begrimed their faces, and all they could do to get clean was first to try and scrape the dirt off with the knife, and then rub themselves all over with bear's grease and wipe it off with moss.

By the middle of May the water along the shore was sufficiently open to permit of their starting in the kayaks on the journey which they expected would end at Spitzbergen. On May 19, 1896, they bade adieu to their winter camp, having packed everything on the kayaks, which they fastened together for convenience and stability. Sometimes they had to get out on to the ice which blocked the channel and drag the kayaks over to the open water on the other side; sometimes they sailed and sometimes they paddled. They passed numbers of walrus lying on the ice, the great monsters paying no heed to them whatever. Once they landed on a mass of ice which rose high out of the water, in order to climb to the top of it and examine the coast line, for they were still in very great doubt whether they were off the shore of a hitherto undiscovered [Pg 212] island or not.

They made the kayaks fast to a projecting piece of ice, and together climbed up to the top of the hummocks. As they reached the summit they looked back to the spot where they had left the kayaks, and were horrified to see them adrift. Already they were some distance away from the ice, and, being tied together, they were going rapidly down the channel. For a moment the sight held the two men motionless, for the kayaks represented their only means of escape. Everything beyond the clothes in which they stood was stored on board, and to be left on the ice without food, arms, or shelter, was almost certain death.

There was only one desperate means of salvation, and that Nansen took. Dashing down the hummock, he plunged into the ice-cold water and struck out after the retreating kayaks.

Weighted by his stiff, heavy, grease-sodden clothes, he had the utmost difficulty in swimming at all; but there was a greater handicap even than his clothes in the low temperature of the water. It struck through him with a chill which reached to his bones, numbing his muscles, and making his joints lose their suppleness. The breeze which was blowing helped the kayaks along, but only increased his discomfort. Soon he felt that the fight was only a matter of minutes for as the coldness numbed him more and more, he realised that unless he overtook the kayaks quickly he [Pg 213] would go to the bottom like a stone. The cold penetrated to his lungs, so that he gasped for breath; his hands and feet lost all feeling, and his eyes were growing blurred as he nerved himself for a final desperate struggle. Swimming as hard as his strength of will and muscle could command, he succeeded in coming within touch of the light drifting craft. The fact that the two were fastened together was of the utmost importance under the circumstances, for had they been separate he could never have clambered into one in his benumbed and exhausted condition. As it was, he managed to get one arm over the *ski* which formed the coupling between the kayaks. His hands were too cold to grip and he hung for a few seconds resting, till the growing chill in his limbs warned him of the danger he was in of becoming frozen. With a superb effort of determination, he raised himself until he was able to lift a leg over the side of one of the kayaks, and then struggled on board, where he lay for a minute or so trying to recover his breath.

Still fearing the cold, he grasped a paddle and set to work vigorously to force the kayaks back to the ice on which Johansen was standing. The exertion caused his blood to circulate once more, and, by the time he had reached the ice, the deadly chill was out of his frame. There were no dry [Pg 214] clothes to put on in place of his wet ones, and all that could be done was to wring them out, and then, working hard to keep up his circulation, wait till they dried on his back.

In order to prevent another such occurrence, the kayaks were freed from each other, Nansen occupying one with half the provisions and stores, and Johansen the other. Two days after the break away they had reason to be thankful they had made this arrangement. They were skirting

along the ice at the time, and suddenly came upon a herd of walrus. Instead of quietly watching them go past, as was usually the case, a huge bull slid off the ice with a roar, and swam rapidly towards Nansen's kayak.

Diving as he came near to it, Nansen anticipated that he intended rising immediately underneath it, and so capsizing it. He therefore paddled as hard as he could, when the walrus rose by his side. It reared high out of the water, towering over the kayak and its occupant, and only by the quickest of manœuvres was Nansen able to avoid having it fall upon him. Baulked in that attempt, the walrus swam alongside and, plunging its tusks through the frail covering of the kayak, strove to upset it with its flipper.

Nansen swung his paddle in the air, and bringing it down with all his strength on the monster's head, caused it again to rear in the water. Paddling furiously directly the brute's tusks were withdrawn, he managed to elude it till it sank, when he made for the ice, reaching it just in time, [Pg 215] the water having almost swamped the kayak through the holes the walrus had made with his tusks.

When the damaged kayak was taken out of the water, the injury was found to be more extensive than at first supposed. The two explorers determined to stay where they were for a few days, so as to thoroughly overhaul and repair their kayaks, and have a good rest before commencing the difficult journey which was to be negotiated before they could arrive at Spitzbergen. They made as comfortable a camp as they could on the ice, and, after supper, got into the sleeping-bag and rested peacefully. Nansen was first awake, and, having crept out of the bag, set to work preparing breakfast. It was ready before Johansen was, and not wishing to disturb his comrade, Nansen put on his *ski* and set out for a "constitutional" over the ice. He had not proceeded far when he heard a sound which made his heart jump. It was the bark of a dog.

Hurrying back, he told Johansen, and then set out in the direction whence the sound had come, in search of, as he believed, a whaling ship. He had not gone very far when he saw in the distance two moving specks. There was evidently a whaler in the neighbourhood, he told himself, and redoubled his efforts. As he approached the two specks they became clearer, until he saw [Pg 216] distinctly that one was a man and the other a dog.

The man noticed him and waved his hat, to which Nansen replied by waving his; as they came nearer, he heard the man speak to his dog in English.

"How do you do?" he said to Nansen when they met.

"How do you do?" Nansen answered, as they shook hands. "Are you wintering near here?"

"Yes; our camp is over there. Won't you come across?" the other replied. "I think we can find room for you, if you will."

Nansen, never dreaming but that he was recognised, assented, although he wondered why the man did not ask him about the *Fram*. Presently his companion looked at him closely and said: "Are you Nansen?"

"Of course I am," the explorer answered, and at once both his hands were clasped in a hearty grasp as his companion quickly expressed his congratulations.

"I was not certain," he explained. "When I saw you in London you were a fair man with light hair, but now your face and hair are black, and for the moment I did not know you. My name is Jackson."

THE MEETING OF JACKSON AND NANSEN.

Nansen and Jackson returned to Norway in the *Windward*, the ship of the Jackson-Harmsworth Expedition, on August 13, 1896.

Nansen had forgotten that his face and hair were still begrimed with the dirt and grease of months of travel, and that his own family might have been forgiven for not recognising in the [Pg 217] unkempt, travel-stained, long-haired man, the smart, well-set-up Norwegian doctor. Now, however, that he was known, he listened with great interest to the information that his companion, Mr. F. G. Jackson, leader of the Jackson-Harmsworth expedition, was able to give him. When they reached the encampment of the party on Cape Flora, every one turned out in answer to the leader's call and gave the intrepid explorer a characteristic British greeting. Then they photographed him, as he stood, before they took him into the house and supplied him with the luxury he had not known for more than a year—of a cake of soap and a change of clothes.

While he was enjoying his bath, his hosts exchanged opinions. The fact that he had arrived on foot and alone suggested to them the idea that he was the only survivor of the thirteen who had set out in the *Fram*, and they decided to make no reference to what might be a very unhappy memory. Consequently, when Nansen reappeared, clean and comfortably clad, they had a meal ready for him, and urged him to set to at once. He looked at them and asked where his comrade Johansen was. Had they not brought him in? Of course they knew nothing about Johansen; they believed Nansen was the only survivor, and he had been so long out of the world that it had never occurred to him it was necessary to tell them Johansen was waiting for him to return to breakfast. When two men see no one else but themselves for more than a year, it is not to be [Pg 218] wondered at that they forget the rest of the world is not in touch with them.

As soon as he mentioned the fact that Johansen was in the neighbourhood, a party at once started off to fetch him, and the worthy lieutenant was as much surprised as they had been when they came upon him. They at once took charge of him and his belongings, and a few hours later he and Nansen, well washed, well clad, and well fed, were smoking cigars in comfortable chairs in the dining-room of the hospitable Jackson's quarters, the heroes of the occasion.

Three weeks later they were sailing south to Norway in the *Windward*, and arrived at Vardo on August 13, 1896. A week later the *Fram* entered the same port, with all her crew in good health, and with nearly three years' supplies still on board.

The record of her voyage, after the departure of Nansen and Johansen on March 14, 1895, was very satisfactory. She drifted steadily in the ice towards the north-west until she touched as high as 85° 57' N. At the end of February 1896 she became stationary, and remained so until the

middle of July, when the crew forced a passage through the ice into open water, and from thence the *Fram* sailed to Norway. The first news the crew received on arrival at Vardo was that Nansen and Johansen had reached there just a week before. They had had some misgivings as to the [Pg 219] safety of their two adventurous comrades, and the news of their return cleared away the only sign of uneasiness from the otherwise happy minds of the men who formed one of the most successful expeditions that has ever set out in search of the North Pole.

CHAPTER IX [Pg 220]
FRANZ JOSEF LAND AND SPITZBERGEN

The Jackson-Harmsworth Expedition—Object of the Expedition—An Interesting Experiment—The Franz Josef Land Question settled—A Group of Islands, not a Continent—Conway at Spitzbergen—Ancient History—Bygone Splendours—Scenery in the Making—The Romance of Andrée—Another Riddle.

The interest and admiration aroused by the brilliant achievements of the Nansen expedition eclipsed in the public mind, for the time being, the work of other and contemporary expeditions, the members of which, nevertheless, were doing admirable service to the cause of science in and about the Arctic Circle. Prominent among these may be mentioned the Jackson-Harmsworth expedition to Franz Josef Land (whose presence there was of such signal service to Nansen and Johansen when, as is related in the preceding chapter, they emerged from their historic dash for the Pole), the Conway exploration of Spitzbergen, and the aeronautical attempt to reach the Pole made by Herr Andrée.

The Jackson-Harmsworth expedition left London on July 11, 1894, in the steam yacht *Windward*, Captain Browne, for Franz Josef Land, and comprised the leader, Mr. Frederick G. Jackson; Lieutenant Armitage, R.N.R., astronomer; Dr. Kottlitz, medical officer; Mr. W. S. Bruce, zoologist; [Pg 221] and Messrs. Wilton and Heywood. A complete outfit, with stores and provisions for three years was taken. It is an interesting fact that this undertaking was the first instance of an individual London newspaper proprietor displaying the generous enterprise which owners of great American journals had already shown. Lord Northcliffe (then Mr. Alfred Harmsworth) contributed to the expedition the most necessary factor for a prolonged stay in the Arctic regions, the sinews of war.

On arrival at Franz Josef Land, a site for the camp was selected near Cape Flora, and the camp, to which the name Elmwood was given, was laid out. It consisted of a Russian log-house and several canvas houses, as the first intention was to lodge the members in the canvas structures. But very little experience showed that canvas was not the most comfortable material for residential purposes in Arctic regions, so the whole party moved into the log-house, using the canvas structures for warehousing stores. Here they lived during the three years that the expedition was away, and so well off were they that during the whole period not one member had a day's illness. As the leader said on his return to England in 1897, "a jollier, healthier, and busier little community never existed." They were always busy, and every moment of the day was occupied. Even in the dark winter period they found constant employment for their hands and [Pg 222] minds.

In the high latitude where they were the sun set for the last time about the middle of October, and was not again visible until the latter end of February. From the day the sun went below the horizon until the middle of November there was about a couple of hours faint twilight at "noon," but, after that, midday and midnight were not to be distinguished by any change in the light of the sky. It was always dark.

During this period, when the members were in winter quarters, they kept very regular hours. At 8.30 A.M. they had breakfast, and when the meal was over each one took up some part of the household duties—washing the dishes, making the beds, sweeping the rooms, feeding the dogs, and such like. Unless the weather was very stormy, a couple of hours was spent in exercise over the snow on *ski*, or if the weather was too inclement to allow them to go far away, they spent the two hours in exercising round the house. At 2 P.M. they gathered again round the dining-table and partook of tea, bread and butter, and cheese, spending the afternoon in making tents and harness for the sledge dogs, or anything else that was wanted. At 7.30 P.M. they had dinner, passing the remainder of the evening in reading, smoking, games, &c., until 11.30 P.M., when they retired to their bunks.

Of food they always had plenty, living very largely on the game killed. During the last winter they [Pg 223] were at Elmwood a chief article of diet was an Arctic bird, the loon. Great numbers of these visited the islands in the mild seasons, and in the autumn before the expedition returned 1400 were shot and frozen for winter food. As the loons only arrive during the mild season and disappear as soon as winter sets in, Mr. Jackson, in the last autumn he was at Elmwood, caught a number both of loons and kittiwakes, and having attached a copper label to each, with the letter J. engraved upon it, liberated the lot. By this means it is hoped to learn where the birds go to in the winter, for should any bird bearing a copper label be shot in Scotland, Norway, or elsewhere, it will show where their refuge is situated.

The primary object of the expedition was to make a complete exploration of Franz Josef Land,

which was formerly considered to be merely the southern extremity of a vast tract of land, possibly a second Greenland, and extending up towards the Pole. The result of the three years' work was to effectually disprove this opinion by showing that in place of a continent there was only a group of small scattered islands. Various voyagers had returned from time to time and reported observations of land in the locality, with high mountain ranges. Gillies Land, Petermann Land, and King Oscar Land all had existence on the maps; but the Jackson-Harmsworth party [Pg 224] could only find scattered islands where the coast of Franz Josef Land was charted, and hummocks of piled-up ice where mountain ridges had been seen. Of Gillies Land, Petermann Land, and King Oscar Land no trace could be found. When the expedition went on board the *Windward* to return to England, the vessel steamed north-west for fifty miles without seeing any indication of land, the water being open and with less ice than would have been probable had land been near. And yet they were in the locality where Gillies Land was marked on the chart. A journey was also made to within ten miles of the spot where Eastern Johannessen Land was placed on the chart, but no signs of land were visible, although the weather was clear at the time.

During the three years spent at Elmwood, exploring and surveying journeys were frequent in the mild seasons, and the arduous nature of the work done is well shown in the account of the last two journeys undertaken prior to returning to England. On March 16, 1897, a party consisting of Jackson and Armitage, with sledges, thirteen dogs, a pony, and a canoe, set out from the log-house with the intention of going round the western side of Franz Josef Land in order to define its limits. From the start they had to face stormy weather, while the snow was both deep and soft, and the ice rough and treacherous. After a fortnight's travelling, during which they came upon a [Pg 225] hitherto undiscovered headland and fjord, they rounded the north-eastern extremity of the western land. Continuing their journey westward, they had to battle against the severity of the weather, the temperature going as low as 40° below zero, and proving disastrous to the animals. By April 7 nearly all the dogs were dead, and progress was very slow and difficult. Three days later the nature of the ice along the shores compelled them to turn inland, and they had to make the best of their way over glaciated land 1500 feet high. Out to sea there was open water, and as they progressed they found that the water was free from ice right up to the glacier face. Then the pony died, and with only their diminished team of dogs to haul, they were obliged to abandon everything that was not absolutely necessary to maintain them during the remainder of their journey. The weather grew worse and worse, and for days they were surrounded by thick heavy mists, with strong gales and drifting snow. They tried to find a way along the shore, leaving the high glacier summit, but what ice there was on the coast was breaking up so rapidly that they were compelled once more to climb to the high level, abandoning the canoe, as there was no chance of their being able to use it.

While regaining the higher level, they came upon the only bear met with during the whole journey, and they were careful not to allow him to escape, his flesh and fat being welcome [Pg 226] additions to their stock of food and fuel. The gales now became more severe, until they found it impossible to travel when one was blowing. Consequently they had to press forward as fast and as far as they could in between the blows, and on one occasion were marching for twenty-four hours at a stretch. The ice was also terribly trying, and so rough was it in places that they frequently had to go three times over the same track before they could find a way over or round some awkward obstacle. At one time they were pushing across the ice of a bay, when they were suddenly stopped by the ice opening on to free water, and, after retracing their steps, they had to climb and haul their stores up the steep sides of the glacier to the summit, forty-five feet above the sea-level.

When they set out, it was arranged that a relief party should meet them at Bell Island the third week in April, but so many delays had been caused that they were not able to reach the rendezvous until a fortnight after the time fixed. The relief party had been waiting for them, considerably anxious at their non-appearance. In the two months they had been travelling, they had had only thirteen and a half fine days.

After returning to Elmwood and resting for ten days, the two again set out to the eastward. They were travelling over the ice, on the second day out, when it gave way under the sledge. They lost all their stores and equipment, and saturated their cartridges. They had at once to turn back, but [Pg 227] the ice was growing so thin that they had great difficulty in reaching the shore. For nearly twenty-six hours they had to keep marching before they covered the forty-two miles which lay between the scene of their disaster and Elmwood. This was the last journey undertaken prior to their departure in the *Windward* for England a month or so later.

The account of the achievements of this expedition would be incomplete were no mention made of two open-water discoveries. One was that of the British Channel, an open-water tract extending from the islands into an open sea, which formed the second discovery, and was named Queen Victoria Sea in honour of the then reigning sovereign. This sea was observed to be free from ice all the time the expedition was on the islands, and the information thus obtained was of considerable service to the Italian explorers who, a few years later, made an ineffectual dash to reach the Pole over the ice-fields.

Further valuable information was obtained by geological observations of the islands. These demonstrated that the islands were an archipelago, formed from the remains of a fairly extensive tableland, the surface of which was composed of basalt so similar in character as to be almost identical with the basalts of the north of Scotland. To the scientific mind this suggests that at one [Pg 228] time these far-outlying islands were connected with lands from which they are now separated by enormous stretches of sea, and were subject, in that distant period, to the same volcanic

outbursts and covered by the same basaltic flows that resulted. It must have been a period of enormous volcanic activity, for the beds of basalt overlying the fossil-bearing strata averaged six hundred feet in thickness, while evidence of successive flows is found in the existence of sedimentary fossil-bearing rocks sandwiched between layers of basalt.

Raised beaches were frequently noticed. In one case, on a beach fifty feet above the present sea-level, a pine tree, evidently of considerable age and about twenty feet in length, was found where it had obviously been thrown up by the tide in the bygone years when the beach formed the shore of the sea. Under this beach there was a bed of sandstone showing fossils of plant remains, while above it towered basalt cliffs five hundred feet high. Lignite and bituminous shale were met with in the sandstone under the basalt, and, in muddy stretches of country, horns and other remains of reindeer were found, though there are no living representatives of these animals now on the islands. Among the fossils brought away was one of a plant long since extinct in all parts of the world save Japan, where the tree is still a flourishing variety.

While Franz Josef Land was being explored and mapped, a private expedition formed by Sir [Pg 229] Martin Conway visited Spitzbergen. It was this island which Sir John Franklin advocated should be the base of operations for an expedition to the Pole. The reason for this opinion was the belief that Spitzbergen was merely the most southerly point of a chain of islands, if not of an island continent, stretching away to the north. A similar idea, held in regard to Franz Josef Land, was dispelled by the Jackson-Harmsworth expedition; the information which was made available on the return of the Conway party also dispelled the Franklin view.

Curiously enough the objective of the expedition is one of the most anciently discovered lands in the Arctic regions, and one that has a history full of incident; yet the interior was unknown to man from the time of its discovery in the sixteenth century to the time when Sir Martin Conway and his companions pushed their way in from the coast. Owing to the tail-end of the Gulf Stream reaching as far as its shores, the seas round Spitzbergen are freer from ice than any other seas in equally high latitudes. Situated in from 80° to 82° N., the group of islands, to which the single name is given, was first discovered by two Dutch navigators, Barendszoon and Heemskirk, who, in the year 1596, were trying to find a way of reaching China through the Arctic Sea. Eleven [Pg 230] years later, Hudson sailed among the islands while trying for a northern route to the Indies. Failing in his attempt to get round by the north, he returned to Spitzbergen and saw how the waters were literally teeming with whales, walrus, seals, and other oil-giving animals. A flourishing fishery was started, and for years proved a bone of contention among the various maritime nations. No one country caring to annex the islands, they were practically a no-man's land, where each little colony of fishers were as a law unto themselves, though not necessarily to any one else. Consequently fights were frequent and much ill-will engendered, until the Dutch and the British Governments stepped in and came to a mutual understanding on the matter. About this time the fishery trade was so important that one colony numbered over 20,000 inhabitants during the season; but it was not a settled population, and a few years after the understanding had been arrived at, the colony was deserted owing to the ruthless slaughter of all marine animals having practically exterminated them in the vicinity. From that time the islands have been neglected, save for the occasional visits of a few trappers, until Sir Martin Conway and his companions penetrated to the interior, and came back with so many delightful experiences that an enterprising company was formed to make this snow-laden district a place for summer resort.

THE FRONT EDGE OF KING'S GLACIER, WESTERN SPITZBERGEN.

The thickness of the ice showing above the sea-level is about 100 feet.

Photo by E. J. Garwood.

From a geological point of view the main island is full of interest, for the interior, which is [Pg 231] characterised by mountain chains and rugged peaks, is covered with ice, and is sending down

glaciers to the coast, where they come under the influence of the warmth generated by the Gulf Stream and rapidly melt. The result is that the constant rush of torrents from the melting glaciers and snowfields is carving out valleys and river-ways, and stripping away mountain sides to make coastal plains so rapidly as to form an admirable object-lesson of physical geography in the making.

During the season Sir Martin Conway and his companions spent on the island they set a record for energy and achievement. They spent thirty-six days in the interior, sleeping either in small tents or in the open, the one being little different to the other, for the tents never kept the rain out and rarely the snow. Then they voyaged in a twelve-ton steamer up and down the coast for a distance of something like a thousand miles, though the steamer cabin was so small a place that when all the five members of the party were down below together, only one of them could stand up at a time. By the date their trip had ended they had crossed the island four times, had made thirteen mountain ascents, had made a rough survey of six hundred square miles of country, had steamed a thousand miles among heavy ice along coasts, through straits, and up bays, for the most part never before visited, and had located innumerable streams, hills, and glaciers. [Pg 232]

More romantic and mysterious, but less replete with scientific value, ranks the expedition of Herr Andrée, perhaps the most novel of all Arctic expeditions, inasmuch as it was undertaken by balloon. The idea which actuated Herr Andrée in his enterprise was to utilise the current of air which, in July, almost invariably blows over Dane's Island to the North. Being an experienced balloonist, he realised that, could he once rise into that current in a balloon, he would be carried right across the Polar region in a few days. From the balloon car he would be able to observe the character of the region below him, and set at rest the question whether perpetual ice, open water, or land, occupied the extreme northerly spot of the world's surface.

With two companions, Dr. Strindberg and Herr Fraenkel, and a specially prepared balloon, an attempt was made to get away in July 1896, but was unsuccessful, and the start was postponed for a year. In July 1897 the members of the expedition were again ready, and on July 11 they were cut loose and floated away out of sight to the North. Since then no authentic news has been heard of them.

They went away prepared to face a long detention in the frozen world. In the car of the balloon they carried weapons, ammunition, and material wherewith to build a shelter, should the balloon [Pg 233] collapse and leave them on the ice. An aluminium boat was also carried, so that the party could escape by sea if necessary. Several carrier pigeons were taken, and were to be liberated at intervals on the passage; but although one pigeon is said to have been shot in the Far North, it is doubtful whether it was one of the Andrée birds.

The balloon, when it went out of sight, was travelling at a speed which would have carried it over the Pole in a few days, and probably have enabled it to descend in Siberia in about a week. For the first fortnight after it had started, therefore, interest all over the world was keenly excited for further news. But the fortnight passed without any reliable intelligence being received, and a month followed, and so on until a year had gone by. Then relief and search parties were talked about, and the Swedish Geographical Society sent one out to look for the missing balloonists in Siberia. It did not meet with Andrée, nor did it obtain any reliable information respecting him. News was certainly published in every civilised country to the effect that some outlying hunting tribes had come upon a huge bag, having a mass of cordage attached to it, together with the remains of some human bodies. The Russian, Swedish, and Norwegian Governments immediately sent forward auxiliary search parties, but their only success was to trace the origin of the report, and find that a Siberian trader had, in a moment of mischievous humour, hoaxed a too confiding [Pg 234] telegraph agent.

Later, on September 12th, 1899, a Swedish sloop, the *Martha*, reached Hammerfest with the information that a buoy, branded with the name of the Andrée expedition, had been found to the north-east of King Charles Islands. The buoy had lost the screw plug from the top, and had been so damaged by coming in contact with some hard substance that the interior cylinder was too dented to permit of an examination being made of the inside.

Andrée was well supplied with these buoys, and at any time one may be discovered containing a record of his doings from the moment he disappeared with his balloon sailing towards the north. It is not likely; it is scarcely probable that any sign will ever be discovered of the balloon or its occupants. For years the frozen North held all traces of the Franklin expedition from the eyes of the searchers who were able to conduct their operations along the route they knew Franklin had followed. No search party can knowingly follow the route Andrée and his comrades took. Their fate will probably be for ever a mystery, for so many things might have happened that no one theory can claim for itself more probability than another. All that is certain is that the party went out of sight drifting towards the north. They carried their lives in their hands, and knew that they [Pg 235] did so. Had they succeeded, they would have achieved a mighty triumph; they failed, and in doing so set their names as indelibly on the scroll of Fame as any hero who has laid down his life in the contest with the measureless mystery of the Pole.

[Pg 236]

CHAPTER X
THE POLAR METEORITES

Eskimo Iron—A Mystery of 1818—Search and Failure—Peary and his Huskies—The Secret revealed—An Eskimo Legend—At the Iron Mountain—Removing the Trophies—A Massive Giant—Attack and Defence—The Giant Objects—A Narrow Escape—Conquered.

When Captain Ross was in the Arctic regions in the year 1818, he encountered, in Melville Bay, a tribe of Eskimos who lived near Cape York, entirely cut off from communication with all other tribes, and who had not, so far as he could learn, ever met white men before. He was, therefore, astounded to find them in possession of iron implements. These consisted of rudely made knives, the cutting edges of which were fashioned out of very hard iron; harpoons and spears, tipped with iron points. Questioning the natives as to how they had become possessed of the iron, they explained that it had been obtained from what they termed the "iron mountain" on the coast near the bay. Ross sought for the mountain, and tried to induce the Eskimo to tell him exactly where it was situated, but failed in each case. He secured some of the iron knives and spear heads, and, on his return to Great Britain, the articles were submitted to analysis, when the metal was found [Pg 237] to contain a percentage of nickel mixed with the iron.

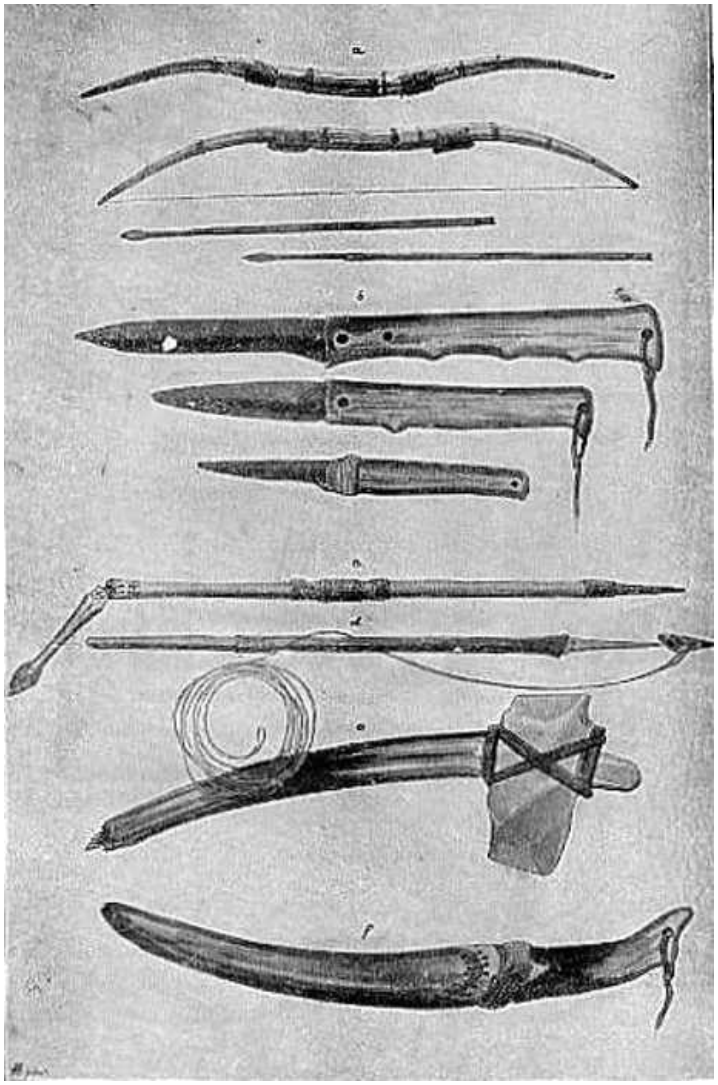
Considerable curiosity was excited over the matter, and every succeeding British exploration party proceeding to the Arctic kept a sharp lookout for any trace of iron in the possession of Eskimo which could not have been obtained from whalers or visiting ships, as well as making every inquiry in order to ascertain where the mysterious iron mountain was situated. In no instance were they successful, and the question where the Cape York Eskimo had obtained their supply of iron became one of the riddles of the North.

When Peary went to the neighbourhood of Cape York to establish the station from whence he started on his brilliant march across the ice-cap, he came closely in contact with the tribe of Eskimo living there. The members of this tribe, isolated from the world and out of communication with all their kindred tribes, were, he felt assured, the descendants of those with whom Ross was associated earlier in the century. In his successive visits to the place Peary became on very friendly terms with the people, and gained their confidence in a way that no other explorer had yet done. This is hardly to be wondered at, when it is remembered that his presence among them, from time to time, raised them from the stress of hardship and poverty, often starvation itself, into a happy, well-to-do, and, for an Eskimo tribe, prosperous community. When he first went [Pg 238] among them, the man who owned a wooden shaft for his harpoon was regarded as a rich man, while the woman who had a steel sail-needle was an heiress for whose hand the bravest and best strove in fierce rivalry. The possession of a gun was beyond the wildest dreams of the most imaginative, just as the possession of a steel knife was the highest glory to which ambition aspired. When Peary left his encampment, at the end of his first visit, the timber of the house and fittings left behind alone made the tribe wealthy, for they believed the world must have been ransacked to bring so much wood together; while the distribution of needles, knives, scissors, and such like trifles, changed the whole status of the people and made them rich beyond their fondest hopes.

On the next visit, Peary took some guns and ammunition for the leading men of the tribe, and there was then nothing they were not prepared to do for their benefactor. They worked, hunted, acted as guides, porters—anything, in fact, the white men wanted them to do. It was at this time Peary sought for information about the mysterious iron mountain, and, as may be expected, got it.

First he was told the story of the origin of the iron, a story they had had from their fathers, as those fathers, in their turn, had had it from theirs. The iron lay across the bay where a high peak [Pg 239] stood out against the sky, pointing the way to the Saviksoahs. These—the "Iron Ones"—rested on the mountain where they had fallen, ages and ages ago, when they were thrown out of their village in the sky by Tornarsuk, the enemy. There were three of them, a man, a woman, and a dog. The man was deep in the ground, the woman partly so, and the dog lay on the surface. As the woman fell, she sat up, and her head had first been seen. A strange tribe came over the ice one year and, in greed, broke off the head and sought to carry it away with them in their kayaks, so that they should have a store of the iron always with them. But Tornarsuk would not allow this to be, and as soon as the kayaks, lashed together to make them strong enough to carry the head, were out in deep water, the head plunged through them, sinking out of sight and smashing the kayaks so that the men who were in them barely escaped with their lives. After that no one tried to take away a larger supply of iron than they actually wanted for knives and harpoon tips. Later, when whaler and other ships came to the seas in the summer time, there was no need to go to the Saviksoahs for iron, though all the tribes knew where they were.

In the spring of 1894 Peary induced one of the tribe to lead him to the place where the Saviksoahs were. The journey led them to a hill, on the summit of which there was an overhanging mass of rock which justified the Eskimo description of it. Describing the discovery, [Pg 240] Peary wrote: "After passing some five hundred yards up a narrow valley, Tallakotteah began looking about until a bit of blue trap-rock, projecting above the snow, caught his eyes. Kicking aside the snow, he exposed more pieces, saying this was a pile of the stones used in pounding fragments from the iron mountain. He then indicated a spot four or five feet distant, as the location of the long-sought object. Returning to the sledge for the saw-knife, he began excavating the snow, and at last, after digging a pit, some three feet deep and five feet in diameter, just at 5.30 Sunday morning, May 27, 1894, the brown mass, rudely awakened from its winter sleep, found, for the first time in its cycles of existence, the eyes of a white man gazing upon it."



ESKIMO ARMS AND TOOLS.

(a) Bow with Strings and Arrows. (b) Knives with Walrus Handles. (c) Lance for Walrus and Bear. (d) Harpoon for Sealing. (e) Stone Axe with Bone Handle. (f) Snow Knife with Walrus Teeth.

This was "the woman," a mass of meteoric iron weighing, as was subsequently proved, three tons. Originally it was said to have been twice that size, the removal of the "head" having considerably reduced it, while in addition there had been generations of Eskimo chipping it for knives and spear tips. The amount of iron which had been broken from it in this way was shown by the pile of stones lying around it. The Eskimo maintained that these stones had all been brought there by the men who came for iron; but if that were true, the Saviksoah must have been chipped for ages, judging by the accumulation of stones. [Pg 241]

About thirty yards away from the "woman" there lay the "dog," a smaller mass weighing only half a ton. The "man" was some miles away, as became his dignity and size, for he was found to be a mighty mass, one hundred tons in weight, rugged in form, and so intractable when attempts were made to move him, that his removal forms a tale so full of romance as almost to suggest fiction.

As it was late in the season when Peary's ship, the *Kite*, arrived, there was only time to remove the "woman" and the "dog," the "man" being located but untouched pending the return of another season. The removal of the "dog" did not offer any great difficulty, and the "woman" was levered out of the ground and conveyed to the ship on rollers without giving more than the ordinary amount of trouble experienced in handling heavy masses of inert material. Not so the "man."

With the two smaller meteorites safely conveyed to New York, a return of the *Kite* to Melville Island to effect the removal of the "man" was arranged. Accompanied by a party of scientists and an engineer, Peary sailed north the following year and immediately attacked the problem of excavating and placing on the *Kite* the largest of the three masses. The exact size was not at the time known, but as soon as the work of excavation commenced it was obvious that the task in hand was much greater than was anticipated. The portion first revealed was found to be four feet in length, two feet high, and one and a half feet broad. This, however, was merely a fin-like excrescence on the main mass, which, as the excavation proceeded, was shown to measure twelve feet long by eight feet in width, on the upper face, while a trench three feet round it did not reach to the base. It was then realised that the task of transferring such a huge mass from the place where it lay in the ground to the ship was one requiring great engineering skill and the use of appliances of much greater strength than the *Kite* had brought with her. The mass was about three hundred yards from high-water mark and eighty feet above it. A shelf of rock ran out into the sea immediately below the spot where the meteorite reposed, and the water was [Pg 242]

sufficiently deep alongside the shelf to make it a natural pier or wharf where the ship could make fast for the mass to be loaded on board, when it had been moved from its resting-place and conveyed to the edge of the sea. While the rocky pier was all that could be desired from the point of view of loading, it was entirely unprotected from the ice which, in the early approach of winter, rapidly accumulated in the bay. It was clear, therefore, that the removal and shipment of the mass must be carried out with rapidity if all risk of disaster were to be avoided.

By the time the mass had been excavated and its full dimensions were revealed, the season was [Pg 243] too far advanced for any serious attempt being made to get it on board the ship. It was estimated to weigh not less than one hundred tons, while the rugged and angular form it presented made it an extremely difficult object to handle. All the time available was devoted to making the preliminary arrangements for the definite work of removal in the following season, and, as soon as the ice began to gather in the bay, the *Kite* sailed back to the south. The meteorite being so much larger than was anticipated, a larger vessel than the *Kite* was required to convey it to New York; it was also necessary to have still heavier appliances wherewith to handle it.

The following year, on board the *Hope*, Peary returned to the attack and set to work to carry off his treasure. With the aid of the male members of the Eskimo tribe, in addition to the men he had with him and the crew of the steamer, the plan of operations was commenced. As Peary wrote, in describing the experience: "The first thing to be done was to tear the heavenly visitor from its frozen bed of centuries, and, as it rose inch by inch under the resistless lift of the hydraulic jacks, gradually displaying its ponderous sides, it grew upon us as Niagara grows upon the observer, and there was not one of us unimpressed by the enormousness of this lump of metal. The expressions of the Eskimo about the Saviksoah (Great Iron) were low but earnest, and it, and the [Pg 244] other wonderful 'Great Irons' (the jacks) which could tear it from its bed, awed them to the utmost."

When it was out of the nest where it had rested so long, the method adopted was to tilt it up from one side, by means of the jacks and steel cables, until it stood on end, and then to force it over until its own weight made it fall forward. The spectacle, as it fell, brought home to the onlookers the enormous power it represented. As it slowly moved, the stones lying immediately under it were ground into powder, and, as it lurched forward, the hard masses of rock were rent and split, while a shower of sparks burst from the meteorite itself wherever it came in contact with a more than usually hard piece of rock. The irregularities in its form added to the difficulties, for it was almost impossible to secure firm holds for the jacks, and anything approaching a slip on the part of the mass was tantamount to death or destruction to any one within reach of it. Day and night the struggle went on, the mass seeming to resist every inch of the way, settling itself into awkward corners and crevices; cutting its way, as it fell, through the baulks of timber set to form a bed for it; bending and notching steel rails, when they were substituted for the wood; and generally giving as much trouble as it was possible to give, almost to the extent of suggesting conscious design. Hard as every one worked to win, the meteorite proved too much for them, and [Pg 245] it was only conveyed as far as the rocky pier where the ship lay ready to take it on board when the ice came drifting into the bay, and for another winter the meteorite had to be left in its frozen habitat.

"It was the last night of our stay at the island," Peary wrote, "a night of such savage wildness as is possible only in the Arctic regions.... The wild gale was howling out of the depths of Melville Bay through the *Hope's* rigging and the snow was driving in horizontal lines. The white slopes of the hill down which the meteorite had been brought showed a ghastly grey through the darkness; the fire, round which the fur-clad forms of the Eskimo were grouped, spread its bright red glare for a short distance; a little to one side was a faint glow of light through the skin wall of a solitary tupik. Working about the meteorite was my own little party, and, in the foreground, the central figure, the *raison d'être* of it all, the 'Saviksoah,' the 'Iron Mountain,' towering above the human figures about it and standing out, black and uncompromising. While everything else was buried in snow, the Saviksoah was unaffected. The great flakes vanished as they touched it, and the effect was very impressive. It was as if the giant were saying, 'I am apart from all things; I am heaven-born, and still carry in my heart some of the warmth of those long-gone days before I was hurled upon this frozen desert.' To strengthen this fancy that the meteorite still held some of its celestial [Pg 246] fire and feeling, if a sledge, ill aimed in the darkness at wedge or block, chanced to strike it, a spouting jet of scintillating sparks lit the gloom, and a deep note, sonorous as a bell, a Polar tocsin, or the half-pained, half-enraged bellow of a lost soul, answered the blow."

Yet another year—1897—saw Peary again at work, this time with the meteorite ready alongside the natural wharf. It was the month of August that the *Hope* made fast opposite the meteorite, but already the ice had begun to drift into the bay, as though even that were going to dispute the right of man to carry off the mighty trophy. Without loss of a day, work was commenced and a bridge of huge timbers was constructed along which to warp the mass from the shore on to the ship. The bridge completed, forty-eight hours were consumed in getting the mass on to it. The pressure of its enormous weight put so great a strain on the woodwork that it visibly gave as the mass came on to it, and more than once a collapse seemed imminent. Once a slip of less than an inch upset the equilibrium of everything to such an extent that the stays and supports were apparently within an ace of giving way. It was a curious coincidence that this single slip occurred at a moment and a place where, had anything given way, there was nothing to prevent the mass rolling over the edge of the rock and sinking, presumably for ever, into deep water. As it turned [Pg 247] out, the slip was taken up in time to avert disaster, and thereafter the mass was forced, slowly but surely, on to the deck of the ship.

The Eskimo were greatly disturbed at the spectacle of the meteorite passing from the shore to the ship. They all left the vessel, saying that even if it was forced on to the deck, directly it arrived there it would smash its way through the vessel and plunge into the sea, carrying the ship and all on board with it. From the time work was recommenced on the task of removing the mass, storms and gales had persisted and the sun had not been seen. The Eskimo were, therefore, deeply impressed when, just as the Saviksoah reached the planking arranged for it above the main hold and the tackles were cast loose, the sun shone out, a ray falling from behind a cloud directly on the meteorite and changing it from the dull brown-hued mass into a gleaming bronze.

As though it had yielded itself to the inevitable, the meteorite gave no further trouble. It was gradually lowered into the hold and wedged so tightly into position that it was impossible for it to move, however much the ship rolled or pitched. Fortunate it was this work was so well done, for when the return journey was commenced the *Hope* had to fight her way through a series of the most severe gales and storms that any on board had experienced. The meteorite had yielded, but [Pg 248] the Spirit of the Arctic evidently had serious objections to it being carried off. But the years of persistent effort had won. The mysterious source of the ancient Eskimo iron had been discovered, and, at the same time, the greatest meteorite the world was known to contain was revealed. It was a fitting result that the trophy should be carried from the darkness of the Arctic into the light of civilisation.

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CHAPTER XI
THE SECOND VOYAGE OF THE *FRAM*

Norwegian Enterprise—Mapping the Islands—Nearly Frozen—A Novel Warming-Pan—Eskimo Melody—Arctic Bull Fights—Death of the Doctor—Fire on the *Fram*—New Lands—Prehistoric People.

The expedition which formed the second visit of the *Fram* to the Arctic regions was equipped by private Norwegian enterprise, and sailed from Larvick on June 24, 1898, the day known in Norway as St. Hans Day. The party consisted of sixteen, all told, under the command of Captain Sverdrup, who, with two other members of the party, were in the *Fram* with Nansen on her previous voyage. The plan of operations was to proceed to the most southerly point of Greenland, sail to the north along the western coast to Smith Sound, where the ship was to push as far to the north as possible and form a headquarters, whence sledge expeditions were to be sent out in all directions to explore and survey the immediate locality, and, at the same time, to observe and record all natural phenomena of a scientific nature. As to the exact localities to which chief attention was to be paid, the commander of the expedition was to use his own judgment; but on one point the instructions were definite and emphatic—there was to be no attempt at a dash for [Pg 250] the Pole.

On August 21 the *Fram* reached a suitable place for winter quarters. On the way along the Greenland coast the explorers had to take on board dogs for the sledge teams, and also to obtain a store of walrus meat wherewith to feed them, so that it was not until the date mentioned they were able to reach Rice Strait, which afforded them all the facilities they needed for winter quarters. As Peary was already to the north, engaged in mapping out the land in that direction, the Norwegians decided to give their attention to the land lying on the western side of the Strait, in the vicinity of Hayes Sound, where Nares, in 1875, had done considerable work. They completed the survey of the coast line running round Robeson Channel, and, during their stay, not only mapped out an area of one hundred thousand square miles, but also located hitherto undiscovered land, which was named after King Oscar of Norway and taken possession of in his name. Valuable additions were also made to the zoological, geological, meteorological, and botanical records, while the story of the expedition abounds in interesting experiences.

The sun set on October 16 for the remainder of the winter. A party was out taking observations over some mountains behind the bay in which the *Fram* was anchored, and had returned to camp for the evening meal as the sun was going down. One of the party drew the attention of the [Pg 251] others to it, and they gathered at the door of the tent and watched it in silence. "We were looking at the sun for the last time that year," Captain Sverdrup wrote in his account of the expedition. "Its pale light lay dying over the 'inland ice'; its disc, light red, was veiled on the horizon; it was like a day in the land of the dead. All light was so hopelessly cold; all life so far away. We stood and watched it till it sank; then everything became so still that it made one shudder—as if the Almighty had deserted us and shut the gates of Heaven. The light died away across the mountains and slowly vanished, while over us crept the great shades of the Polar night, the night that kills all life."

With a stretch of four months' darkness before them, it was impossible to avoid recalling the records of others who had gone through the lonely period of darkness and cold. It was a disquieting subject. Franklin, with 138 men under his command, had seen the sun go down into the Polar night, and not a man of all the party had lived to tell the tale. Greely, with twenty-five men, had seen the silent darkness come on near where they were situated at the moment—six had lived to see the dawn. Nordenskjold, wintering in White Bay, had seventeen men die of scurvy, with an abundance of food around them, for when the last victim was found, lying where [Pg 252] he fell, he had a piece of salt pork still clutched in his fingers, while in the camp there were

scores of tins of preserved fresh meat unopened. True it was that science, since then, had made vast strides, and prejudice and ignorance had been largely overcome; but when men find themselves absolutely cut off from all communication with the outside world, and with all sorts of possible dangers and disasters hidden in the future, it is only the fool-hardy who fails to realise them. The brave man does not shut his eyes to dangers; he looks them squarely in the face and determines to overcome them. Such a man usually wins. It is the man who shuts his eyes to what is in front of him who is defeated.

The winter passed without any fatality among them, although there was an occasion when one of the members nearly came to his end. Various trips were taken when the moon was up to try and locate the site where Greely made his historic camp on Pim Island. In February two men set out to look for it, and, as they did not intend to be long away, they took neither food nor sleeping-bags with them. The weather was clear and cold, with the thermometer at -40° Fahr., but the men experienced no ill effects from it on their journey. They found some pieces of rope and sail-cloth scattered about at a spot on the north side of the island, and came to the conclusion that this must have been the site of the camp. Having examined the place, they were about to return [Pg 253] to the *Fram*, when one of them sank to the ground. His companion strove to lift him up, but without avail; he had suddenly become exhausted, and his strength gave out so entirely that he could not remain on his feet. It was a serious situation. A few hours of inactivity in such a temperature, without an excess of fur clothing and warm food, meant freezing to death. His companion was in doubt whether to wait and strive to rouse him, or to run to the ship for help. He adopted the latter course, and sped away as fast as his legs could carry him. Arrived at the *Fram*, he raised the alarm, and every one turned out and hastened to the rescue. A sledge was quickly harnessed to a dog team, and on it were placed furs and food. The place where the man had collapsed was about a mile away, and the rescuers were soon at his side. He lay in a heap on the frozen snow, too far gone to recognise any one. He was pushed into a sleeping-bag, placed on the sledge, and driven off at top speed to the ship, where he was promptly put into his bunk and restoratives administered to him. Soon the efforts were successful, and he sank into a sleep from which he awakened, many hours after, little the worse for his adventure. He escaped without even a touch of frost-bite.

A few days after this episode the temperature fell rapidly, until the thermometer registered as low as -58° Fahr. Peary, the American explorer, was at the time some fifteen miles to the north of [Pg 254] the *Fram*, and the temperature in his locality went down to -67° Fahr., a cold so intense that, hardened as he was to the rigours of Arctic weather, he had seven toes so severely frost-bitten that they had to be amputated. A small party from the *Fram* was out on the ice at the time, and the cold was so trying to them that they squeezed into their sleeping-bags clad, as they were, in heavy fur garments. Still they were unable to get warm, so they lit their oil stove to raise the temperature in the tent. While this was being done, one man complained bitterly of the cold in his back, and a comrade, seeking a cause for it, found that the moisture from his body had turned to white frost on the inside of his thick woollen jersey. To thaw it, they put the lighted stove between the jersey and the man's back, whereupon he exclaimed, "Ah, that's not quite so cold."

Yet the way in which mankind can adapt themselves to all varieties of climate, by use and custom, was shown by a visit they had from one of Peary's Eskimo. He reached the *Fram* on a day when the temperature was at -40° Fahr. Invited on board, he said he must first change his travelling clothes, and, in the open air, he stripped to the waist to remove his heavy furs and put on a lighter suit. He was apparently as unaffected by the intense cold on his naked flesh as one of the Norwegians would have been had the thermometer stood at forty degrees above instead of [Pg 255] forty degrees below zero.

The visit of the Eskimo proved an enjoyable break to the explorers, though their generosity in giving him presents, at the time of his departure, resulted in so many more coming to visit them that they had rather too much of a good thing. But when he first arrived the visitor was peculiarly welcome. They entertained him to various amusements, commencing with dinner and concluding with a concert. To the latter the Eskimo contributed his share. He was greatly taken with a toy drum belonging to one of the party, and played his own idea of a melody upon it. As his hosts did not manifest any displeasure at his performances—whatever they may have felt—he became bolder and offered to sing them a song.

To the accompaniment of the drum, he commenced with a weird, wild wail, which gradually developed in volume of sound and variety of intonation until the listeners began to feel shivers running up and down their spines. At that point the singer, who had so far sat rigid, began to sway his body from side to side, while he tossed his head backwards and forwards. He had long dank black hair, and, as he moved quicker and quicker, in time with the drum and the staccato wails, his hair was tossed over his face until the features were obscured. This appeared to be the [Pg 256] critical moment in the performance, for he raised himself from his seat, and, with his hair tossing, his voice wailing, his body swaying, and his hands thumping vigorously at the drum, he completed the discomfiture of his hosts, who, disposed to smile at the beginning of the performance, were distinctly uncomfortable at the finish. The performer, however, was by no means dissatisfied with himself. He was a great singer, he told them, perhaps the greatest in the tribe. They had only to ask some of the others of his tribe to sing to realise the truth of what he said, he added. But the Norwegians were satisfied with the one experience.

ESKIMO VISITORS TO THE *FRAM* IN NIGHT ATTIRE.

During the sledge journeys numerous indications were found of musk oxen being in the neighbourhood of the sheltered valleys in the interior of the islands. As a supply of fresh beef was always desirable, considerable attention was paid to these animals, and, from time to time, the larder was kept well supplied with their meat. On these hunting expeditions some interesting observations were made on the habits of the oxen. One of the most interesting was as to the manner in which they met attack. When they were disturbed in feeding, the herd would retreat slowly and in order; but if they saw they were being pursued, they moved towards any vantage ground, such as a rise or hill summit, there to form themselves into a square. Each animal took up its position as though by word of command, until they stood, shoulder to shoulder, with their [Pg 257] heads outward and so close together that their horns often linked, while within the square were sheltered any young calves there might be with the herd.

As the enemy approached one of the oxen, usually the oldest bull in the herd, dashed out from his place in the square and bounded towards the foe, with head down, horns brandished with sidelong tosses of the head, snorting and bellowing defiance. As he left the square the ranks closed up and remained so until he returned, when the ranks opened enough for him to back into his place, while another charged out to carry on the combat in front of the square. These movements were executed with lightning rapidity, every animal dashing out in turn to seek single combat, the one to advance being always the one to the right of the returned champion. Usually the advance was for a distance of a dozen yards, but there were occasions when the explorers saw the challenging ox advance over a hundred yards from the main body.

When there were sufficient bulls in the herd to form the outer lines, the cows were placed, with the calves, inside the square; but if the bulls were not numerous enough to complete the outer ranks, then the cows took their places beside the bulls. In one instance, where the herd consisted of cows and calves only, the cows formed the square and carried on the fight while the calves [Pg 258] were sheltered within.

The courage displayed by the oxen was not restricted to their defence. They appeared to be actuated by an *esprit de corps* which could only be likened to the heroism which animates men of fanatical fighting tribes. They were apparently incapable of fear, even to that extent which makes the saving of one's self a first consideration. When the square was once formed it never broke. Every beast in it might be killed, one by one, but there was never a sign of a break-away or a stampede. If only a few were killed, the square stood its ground until the attackers retreated, when, with an open field, the square slowly retired, still in formation, and still ready, at the first signal, to halt and renew the fight. In one instance, where every beast had been shot save one, that one made his sortie, pranced round in defiance, and retired to the heap of slain, all that remained of his gallant comrades.

Their method of defence was capable of repelling the attack of any animal now inhabiting the Arctic regions, and more complete in its system than appeared to be needed to repel any of the animals likely to attack them. It was unnecessary for the repelling of bears; foxes would never attack animals so large; the only animals likely to challenge a contest were the wolves operating in a pack. But the Arctic wolves, as a rule, hunt singly, or in pairs. There may have been a time, [Pg 259]

however, when they formed themselves into packs, and from such a time the defensive tactics of the oxen may date. Certainly the formation would prove invulnerable against such an attack, as was evidenced by the way in which a herd of oxen could hold at bay the dogs from the sledge teams. As soon as oxen were sighted it was the practice to let the dogs loose. They at once made for the oxen, and, as soon as the latter caught sight of them, they formed into a square and remained so until the explorers came up and selected such of the herd as they required for the larder. In no instance did the dogs succeed in harming an ox, though more than once a dog, venturing too near a prancing champion, was spun up into the air to fall to the ground a sad and subdued creature, if it were so fortunate as to escape with its life.

The return of summer, during the first year of their stay, was marred by the death of the doctor. Early in June the shores of Hayes Sound were being surveyed. The ice still covered the sea and the land was deep in snow. One night, when the surveying party had returned to their tent and were sitting round the oil stove eating their supper, they heard a man outside asking if he might come in. They opened the tent flap and discovered the doctor standing outside. He was evidently ill, and, as they soon realised, snow-blind. He had missed his way while out after specimens and [Pg 260] had accidentally stumbled on the camp. He was taken in and given warm food, which revived him somewhat, afterwards being put in a sleeping-bag and made as comfortable as they could make him. In the morning he pronounced himself much better, and said he would stay at the camp, resting, for the day. The party left him with no misgivings, but on their return in the evening they found him dead in the sleeping-bag.

Camp was struck the following morning and, with the body of the doctor on the sledge, the party started back to the ship. It was a sad journey. Not only was it the first time in the history of the *Fram* that a member of the ship's company had died, but the loss of the doctor was a serious matter to the explorers, who were thus left without any qualified expert to attend to them in the event of either sickness or accident occurring. The procession reached the ship on June 15, and the next morning the whole company formed up in funeral array to convey the remains of the doctor to their last resting-place. They gave him a sailor's burial. The national flag covered the body and bier, and the explorers, walking slowly, two and two, proceeded down Rice Strait over the ice to a spot where a hole had been cut through the ice to the open water. The body was lowered to the water's edge, where it was held while prayers were read and a hymn sung. "Then followed the moment when he slowly slipped into the deep. We shall never forget it. We sang a [Pg 261] hymn and said the Lord's Prayer," Captain Sverdrup wrote.

As the survey work advanced to the west of the Sound, the discovery of several inaccuracies in former maps led to the hope that new land might be located in that direction. Ellesmere Land having been explored and Sir Robert Inglis Peak shown to be non-existent, advantage was taken of the opening of the ice in the summer seasons to push the *Fram* farther to the west, so as to enable the sledge parties to reach still greater distances over the ice in that direction. It was by this means the crowning triumph of the expedition was achieved, though at the time of its achievement an event happened which very nearly brought about a tragic ending. This was no less than a fire on the *Fram*.

There were, at the time, only nine men on board. For the winter, an awning had been spread over the deck, below the shelter of which numerous articles were stored, including the ammunition and powder-boxes, a number of kayaks, spare wood for repairing sledges and making *ski*, the oil barrels, and an iron tank full of spirits. The chimney from the galley rose above this awning, and one day a spark fell upon it. At once the canvas burst into flame.

On the first alarm, the mate, who was in charge, gave his attention to the removal of the oil and [Pg 262] explosives; but while these were being dragged out of danger the flames spread rapidly from the awning to the rigging, reaching the mainsail, which also became ignited. Then the fire reached the kayaks, the coverings of which were all saturated with grease. The blaze that followed set all the spare wood alight. The iron tank, full of spirits, was thus surrounded by flames. It was impossible to beat them back, and the men realised that if the tank burst and the spirits caught fire, the ship was doomed. With despairing energy they attacked the fire with buckets of water, and, despite the primitive nature of the weapon, they succeeded in subduing the flames before irreparable damage was done. The tank, fortunately, withstood the heat, though it was badly warped. The kayaks were destroyed, as well as all the spare wood, the rigging and sails on the mainmast, the awning, and some stores on the lower deck, where the flames also penetrated. But the ship was saved.

On October 13, 1900, the news was brought to the ship that the hopes of discovering new land were likely to be realised. A party who had been far out to the west had seen in the distance what appeared to be land at a place where none was shown on the maps. Five days later, with a picked band, Captain Sverdrup was hastening to the place indicated. As the winter was near at hand, they could not do more than verify the news. In the distance they saw what appeared to be new [Pg 263] land, while near at hand they found traces of large herds of oxen and reindeer. The larder was in need of being replenished, and as it was impossible to proceed with the survey of the newly discovered territory before the spring, the members of the party secured as much beef and venison as they could for winter supply. By the time they returned to the ship they had enough fresh meat, not only for themselves but also for the dogs, to last until the following spring.

On April 8, 1901, Sverdrup and his picked companions set out again to explore the new territory. After pushing on as far as the outer limit of the coast, they came upon what appeared to be a large bay. The land they had descried lay on the far side of it, and for the moment they feared

that, after all, it was only a portion of the old, though making the area of that much larger than had hitherto been believed. To prove or disprove their fears they commenced to cross the ice in the bay. As they proceeded, the land, at the head of the bay, was seen to suddenly open out and reveal a sound running between two islands. It was new land which lay before them, and with great jubilation they named the channel Eureka Sound and the island after the King of Norway. The position was 78° 50' N. lat. and 84° W. long.

Close examination of this island led to the discovery of remains of extensive Eskimo settlements, showing that at one time there had been a considerable population where now not a single Eskimo was to be found. The presence of whale bones among the ruins of the huts told of a still further change that had occurred, for whales are now quite extinct in that part, and have been so for a long period. [Pg 264]

CHAPTER XII
ITALY CLAIMS THE RECORD

[Pg 265]

Norwegian Aid—A Northerly Station—Premature Enthusiasm—Cold Comfort—An Arctic Greeting—A Hasty Landing—Disorganised Plans—Homeless Dogs—Making Fresh Plans—The Leader Frost-bitten—The Start for the Pole—Driven Back by Cold—A Second Start—First Detachment Lost—Anxiety for the Second—A Struggle for Life—Third Detachment Overdue—Fears of Disaster—Safe at Last—Italy sets the Record.

For the first time in the history of their country, the Italians entered the field of Arctic exploration in the year 1899, when an expedition under the command of the Duke of Abruzzi sailed in the *Stella Polare*, and by means of dogs and sledges carried the Italian flag to higher latitudes than any other explorers had succeeded in reaching. The record up to the time of this expedition was that set by Nansen, who, with his companion Johansen, attained to 86° 14' N. The Italians reached 86° 34' N., or twenty geographical miles further north than the Norwegians.

The scheme of operations under which the Abruzzi expedition set out was to sail as far north as possible along some coast line, establish winter quarters, and, in the spring, to travel by sledges towards the Pole. The expedition was composed of Italians and Norwegians, the men of the latter race being taken to navigate the ship, the leader wisely recognising that inasmuch as Italians were not used to navigation in ice-bound seas, it would be hazardous to risk the safety of the whole expedition in the early stages of the journey by manning the vessel with them. The sledge party who attained the highest latitude were all Italians, but the Norwegians shared the honours won, for without their assistance the sledge party would have had little chance of penetrating as far to the north as it did. In fairness, also, to all other men who have striven so hard to unveil the secrets of the Arctic, it must be admitted that the Italian success was based entirely on the knowledge gained by other nations. The scheme of a dash by sledges was the scheme that Peary had conceived and announced; the main depôt of the Italians was that which had already been established at Cape Flora by the Jackson-Harmsworth expedition; the route taken by the sledge party was in the vicinity of the route Nansen and Johansen followed; the ship was Norwegian built and Norwegian manned; the men who set out for the dash to the Pole had, therefore, all the hard work done for them. Yet with all these advantages they only reached twenty miles further, an achievement not to be compared with that of Nansen and Johansen. [Pg 266]

The expedition practically commenced its journey from Archangel, whence good progress was made to Cape Flora, a food depôt being established in the huts of the Jackson-Harmsworth party, which were found still standing intact. After an ineffectual attempt to pass through Nightingale Sound, the *Stella Polare* got out of the ice on August 7, and succeeded in reaching 82° 4' N. latitude in open water. This was to the north of Prinz Rudolf Island. [Pg 267]

As there were indications that the ice would soon be setting along the coast, it was decided to sail to Teplitz Bay on Prinz Rudolf Island and establish quarters for the winter. This bay is open towards the south and west, while the land on the north is level but rocky. The ship forced her way through the thin coast ice and came to anchor near enough to the shore to permit the landing of stores to be easily carried out. A more experienced leader might have had some doubts as to the security of the situation as a place for a ship to remain during the winter movements of the ice. With the bay open on two sides, it was scarcely possible for it to escape from the pressure of moving floes outside; but the opinion was held that the ice along the shores was strong enough to withstand any pressure from the open sea, and so the *Stella Polare* was allowed to become fixed in the ice close to the shore.

Brief journeys along the coast and over the highest land which could be reached—Cape Habermann was found to be 2900 feet high—effectually disposed of the claims of Petermann Land and King Oscar Land. There was no sign of either, and there is little doubt but that the explorers who believed they had discovered these lands were deceived by massive bodies of ice. The rectification of the maps to this extent was a valuable service. [Pg 268]

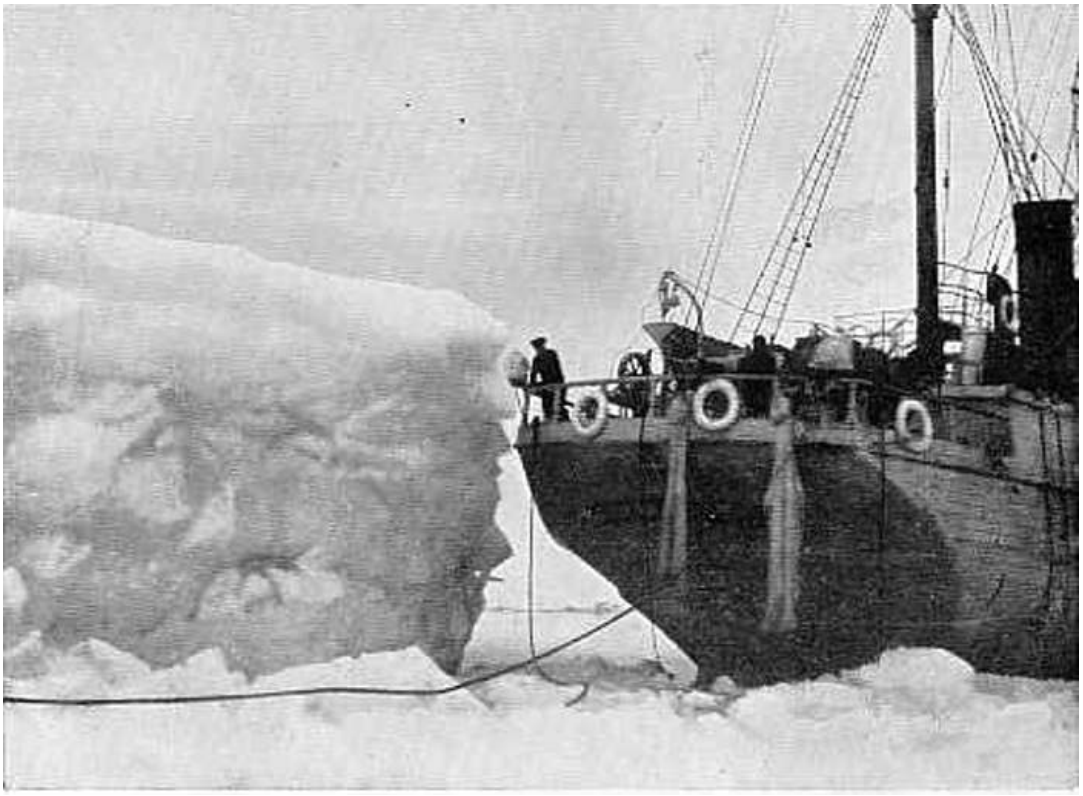
By September all their arrangements for spending the winter on the ship were completed, and with the material which would be required for the preliminary sledge expeditions to the north, and the establishment of food depôts, all on shore, the explorers made merry on the evening of the 7th in discussing the achievements which would result from the working out of their plans.

The difficulties which beset other explorers, often from the very commencement of their journeys, had not been experienced by them, and now, with their vessel almost as high to the north as any vessel had yet been, with their complete outfit at one of the most northerly stations yet established, and with everything snug and secure for the winter, it is not surprising that they should have allowed their enthusiasm to run away with them. It was the first time that Italy had entered into the contest of winning fame from the mysteries of the Arctic, and the outlook was so rosy that it almost appeared as if they were going to signalise the fact by carrying the flag to the Pole itself and showing to the world that the all-conquering spirit of ancient Rome still animated the race. Men of colder temperaments, the sons of the cold-blooded North, would probably have [Pg 269] postponed their rejoicings until the battle had been won, but the enthusiasm of the South needed more than the gloom of an approaching Arctic winter to subdue it. Wherefore the Arctic moved, and the children of the South learned in a few brief hours something of the power and might and majesty of the realms they had come to conquer.

An ice-floe, drifting in the sea beyond the bay, caught the edge of the shore ice, in which the *Stella Polare* lay at rest, as it passed. The shore ice groaned at the strain, and along its length there ran a ridge of hummock ice as the pressure sought relief. The line of the pressure passed through the spot where the *Stella Polare* was made fast. The hummock rose against her bows and forced her ninety feet away from where she had been, while, at the same moment, an increase in the pressure caught her by the sides, heeled her over, and cracked her timbers till those on board rushed to the deck under the belief that the vessel was about to collapse. The rigging of the foremast was torn away, the planks of the exposed side showed spaces of three inches between them, and water poured in so rapidly to the holds that it was feared the ship would go down. The hand-pumps were manned and worked, while the fires were lit so as to get up steam and set the steam-pumps going, every one else, who was not required for these jobs, working [Pg 270] with might and main to get all stores and provisions out of the ship and on to the ice, lest she went down and left them stranded and foodless. The glamour of the evening before was as a dream; the gloom of the present was a stern reality to which they had awakened. The Arctic was giving a characteristic and rugged greeting to the visitors from the South.

The stores were landed with the greatest rapidity, the activity with which every one worked being still further stimulated by the news from below that the one hand-pump, which was being worked by four men, could not keep the water back, and that already it was almost touching the bars of the furnaces. At one time it looked as though there would be no chance of saving the fires, and had the water once reached them and so prevented steam being got up, the plight of the explorers would have been critical in the extreme. As it was, the Norwegian engineers worked like heroes, and managed to have enough steam to start the steam-pumps just as the water touched the fires in one of the boiler furnaces. The steam-pump, assisting the hand-pump, was sufficient to keep the water from rising further, but not enough to keep it back altogether. Neither the steam nor the hand pump, by itself, could prevent the water from rising. Both had to be kept going, therefore, although the number of men thus taken away from unloading stores and [Pg 271] provisions made that work very much slower than was desired. But if the water reached to the fires and put them out, there seemed to be little chance of saving enough to keep the party alive during the winter. So they worked on with a brave persistence, Italian and Norwegian alike, until they had all the stores out on the ice, together with spars, ropes, sails, and all other things needed for the construction of a shelter in which to pass the winter. This was only completed after twenty-four hours of toil, and when it was finished the worn-out party sought a brief respite in sleep. As soon as the pumps ceased working the waters rose in the holds and over the furnace bars, putting out the fires. Contrary to expectations, the ship did not go down, the ice being sufficiently strong to sustain it from sinking, and the water stopped rising when it had covered the furnaces.

Although the ship was now secure from sinking, it was heeled over to such an extent that it was impossible to remain on board of it, so a hut was erected ashore, and the stores stacked round it for the winter. For ten days the entire party laboured at this work, and when it was finished it was realised that all the plans for the preliminary sledge trips must be abandoned. Instead of giving attention to reaching the Pole, it was first of all necessary to see what could be done in the way of repairing the ship so as to be able to get away before a second winter could come upon [Pg 272] them. A close examination revealed the fact that the pressure of the ice had considerably affected the form of the ship. The crank shaft was bent out of the straight, and the heavy iron beams which had been put in to strengthen the vessel amidships were all bent and twisted. The planks at the sides were started and gaped in many places. The water, which had got in, had frozen, so that the furnaces were covered in by a sheet of solid ice, while the same thing existed in the hold. As the hand-pump could not lower the water alone, it was decided to use a boiler and pump which formed part of the balloon equipment. Although the use of these articles effectually terminated any hopes of balloon experiments, it enabled them to get the water down sufficiently to permit of repairs being effected. From the beginning of October to the middle of November, the repairs fully occupied them; but they succeeded in making the ship water-tight and available for departure when the winter had passed. The bay, by this time, was frozen over sufficiently to preclude any fears of further nips occurring.



ONE OF THE DIFFICULTIES ENCOUNTERED BY THE *STELLA POLARE*.

On November 20 the last vestige of daylight went, and thenceforward the explorers were in all the gloom of the Arctic night. A heavy snow-storm entirely covered the dog kennels, so that the animals had to run loose for a time. This was not satisfactory, for those of the creatures which were unable to squeeze into shelter near the hut, were frozen to the ice as they slept. To [Pg 273] overcome this, big holes were dug in the ground, and the dogs driven in, and the entrances walled up. But the Arctic dog is a creature of resource, and when the men in charge of them went in due time to feed them, they found that the dogs had made an outlet for themselves by burrowing through the snow, and were again at liberty. A wall of biscuit tins was then built round the inside of the holes, and the entire mass frozen by pouring water over the tins. But the dogs again burrowed their way out, and they were then left to their own devices, the holes being left open, so that there should be some shelter available for the dogs if they liked to use it. Mostly they did not like, preferring to squeeze in between the sides of the hut and the kitchen, and contribute their share to the entertainment by occasional howling choruses during the long dark hours of winter.

During the long night the plans for the sledge expeditions to the North, which had been so effectively interrupted by the nipping of the ship, were further considered. As the original scheme could no longer be carried out, a modified plan was adopted. Under this, it was determined to send out three parties, which were to start about the middle of February and press forward towards the Pole. Each party was to consist of three Italians. One was to carry provisions for thirty days, the second for sixty days, and the third for ninety days. The second and third [Pg 274] parties were to carry kayaks.

At the commencement of the expedition it was intended that the Duke of Abruzzi should lead the detachments as the head of the third party, the one which would have the honour of proceeding the longest way; but early in January he had two fingers of his right hand frost-bitten so severely that the two top joints had to be amputated. This debarred him from taking his place at the head of the enterprise, and he appointed Captain Cagni to the lead in his stead. As at first arranged, the other parties were commanded, the first by Dr. Cavalli, and the second by Lieutenant Querini. A fourth party was to follow the other three for a couple of days, as an auxiliary, so as to allow of a saving in the consumption of provisions carried by the others. It was also arranged that twenty-five days after the start of the expedition, those of the company who remained behind at Teplitz Bay should send a watch party to Cape Fligely, in order to be ready to set out and meet, and, if necessary, render any assistance which the returning members of the first detachment might require. From the top of Cape Fligely a distance of eight miles could be seen over the ice to the north, and a signal-post, erected on the cape, would be visible as a guide to the returning explorers as they approached over the ice. The watch party was to be on the cape again fifty-five [Pg 275] days after the departure of the second detachment, and eighty-five days after the departure of the third detachment.

The date of departure was ultimately fixed for the 19th of February. The detachments, when ready to start, numbered, in all, twelve men, with thirteen sledges, drawn by 104 dogs, each sledge weighing, with its load of provisions, 617 lbs. The weather, at the time of the start, was intensely cold, there having been a gale blowing for some days before. When all was ready for the march to begin, the detachments set out, after hearty farewells from those who remained behind, and who watched them slowly pass out of sight over the ice and into the cold mysteries of the

white region lying towards the north.

The camp at Teplitz Bay was strangely quiet after their departure, the absence of the dogs, no less than the absence of the men, rendering the place lonely and deserted. It was not expected that the auxiliary detachment would be back again for some days, and it was with very great surprise that the Duke of Abruzzi, while walking near the hut one day, heard the sounds of dogs barking near at hand. He hastened in the direction whence the sounds came, and was astounded to see Lieutenant Querini coming towards him. Immediately he came to the conclusion that disaster had overtaken the expedition soon after starting, and that the lieutenant was the bearer of ill news, if not the only survivor of the detachments. The facts were, however, not quite so bad [Pg 276] as this. What had happened was that the cold had become so intense, after leaving Cape Fligely, that not only the men, but the dogs also, suffered severely, and were almost incapacitated. The experience of a few days revealed many points where improvement could be made in the arrangement of the sledges and their loading, and the commander, realising that only valuable time would be lost, and perhaps the entire expedition jeopardised, by pushing on under the circumstances, decided to return to the main camp, so as to overhaul the arrangements, and reorganise the detachments in the light of their experiences.

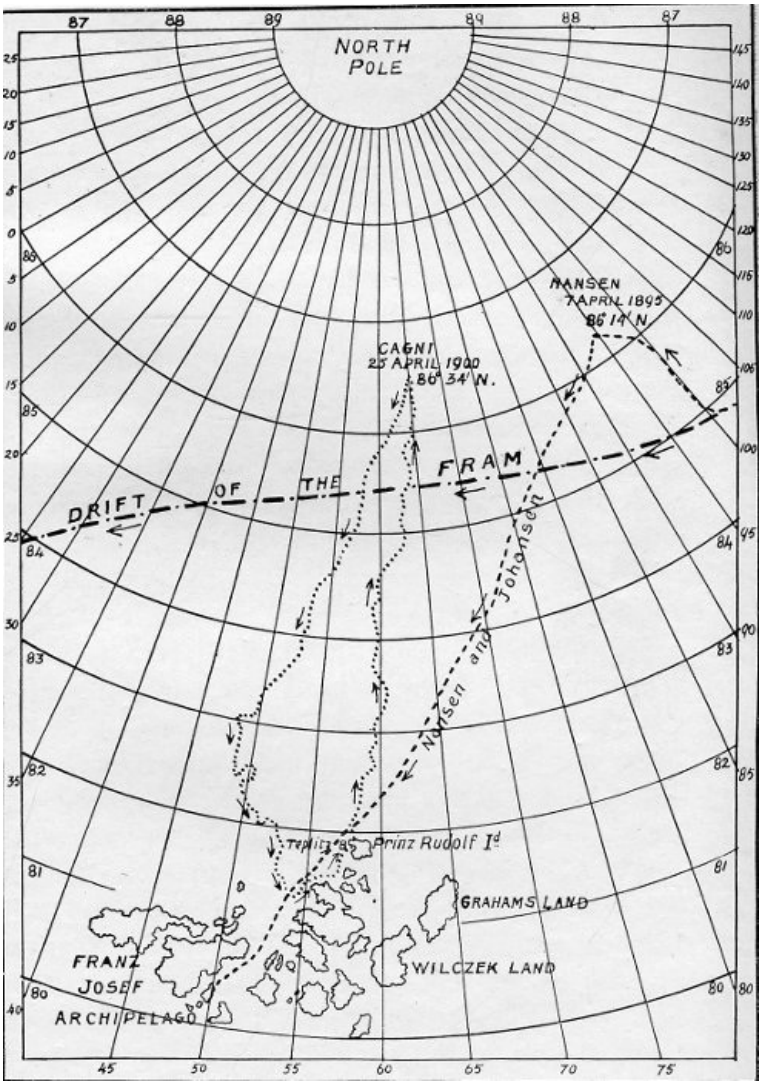
By the time the detachments were again ready to start, February had passed and March 10 had arrived. The loss of time, consequent on their return, necessitated an alteration in the programme of all the parties, and when they set out the second time the order of march was for the first detachment to return after twelve days' march, the second in twenty-four, and the third in thirty-six. The detachments were also varied, so that the main detachment should number four instead of three men. A Norwegian, the engineer of the ship, was included in the first detachment at his earnest request.

The second start was made on Sunday, March 11, and this time there was no turning back. On March 28 the Duke of Abruzzi went, with the watch party, to Cape Fligely, and constructed a [Pg 277] shelter wherein to remain in readiness to greet the first detachment on their return, the date of which was expected to be April 4. On that date, and for some days before, an anxious watch was kept from the lookout point towards the north, but no signs were seen of the returning explorers. For a day or so this did not cause any grave anxiety, as it was quite possible that there might be a brief delay, but as the days went by without a sign, and the days grew into weeks, there was serious uneasiness at the continued non-appearance of the men. The time arrived when the second detachment was due, and still the watchers saw no signs of the returning men. Uneasiness gave place to grave anxiety, and the few who remained at the camp were beginning to wonder whether they alone would return home, with the summer, with only a tale of loss and disaster to bear to their country, when a man of the second party reached the camp in a state of great exhaustion. His story was that his detachment, the second, had parted with the third on March 31, and had successfully negotiated the return journey up to April 15, when an open channel in the ice near the island had stopped their forward march. For days they had sought a way round it, but, failing, the leader had despatched the man in the kayak to reach the watch party, and summon assistance of a boat to convey the remainder over the channel. The man had [Pg 278] attempted to land at a point where the ice was some fifteen feet high, but while he was testing it to see if he could clamber up, the kayak slipped away from him and left him clinging, with no hope of escape if he slipped into the water below. He was one of the Alpine guides, and, with his ice-axe, he managed to cut a way up the ice to the summit, though the struggle was a terrible strain on his strength and skill. When, at last, he reached the summit, he was met with a new difficulty. He did not know where he was, nor in which direction the camp lay. He was without food, or refreshment, but he made his way to a higher point, from whence he was, fortunately, able to see the top of the ship's masts showing over the ice. This gave him the direction of the camp at Teplitz Bay, and he made his way thither, with as much speed as he could. When he arrived, he had been battling his way for over twenty-four hours, from the time he lost his kayak, a feat of very great endurance.

In answer to anxious questions as to the first detachment, he said he and all the rest believed the first detachment was in the camp, for it had left the main body in time to reach Cape Fligely by April 2. At the time it started back, owing to the drift of the ice, the island could be distinctly seen, so that there could be no difficulty as to the men knowing which way to go. Moreover, a change had been made in the command, and the first detachment had left under the command of [Pg 279] Lieutenant Querini, Dr. Cavalli having been placed at the head of the second detachment owing to his showing greater staying powers on the march than the lieutenant.

As soon as the rest of the detachment had been conveyed from the ice pack to the camp, Dr. Cavalli corroborated the story and shared, with the rest of the expedition, the anxiety at the non-arrival of the little band. His detachment, he said, had parted with the main party on 31st March, and had seen Captain Cagni and his companions continue their way to the north, with a train of six sledges and forty-eight dogs. The first detachment might, he suggested, have been carried away to the east, and, as they had no kayak with them, they might have been cut off by an open channel and so prevented from reaching the island. Relief parties were immediately sent out to search the ice in that direction, and also to see whether the men had taken refuge on the islands, further to the north-east, where Nansen and Johansen had passed their winter. The search was continued until May 10, when the parties returned, having searched far and wide but without finding any trace of the missing detachment. It was then hoped that they had made their way to Cape Flora, where there was an abundance of food and other necessaries, but when the *Stella Polare* touched there, on her way home, no signs were found of the missing men, and it was then [Pg 280]

realised that they were lost. How, or when, or where, they had met their end, no one could form any opinion. A break in the ice may have precipitated them into a channel; cold may have overcome them as they slept; moving hummocks may have overwhelmed them, or a sudden snow-storm may have caused them to lose their direction, and have led them into dangers they were not able to escape. When no trace could be found of them, and no vestige of their outfit discovered on the ice, or the islands, there was only one thing the survivors could realise, and that was that their comrades had gone out of the world in silence, in mystery, and in sacrifice to the knowledge of humanity.



SKETCH MAP

Showing Captain Cagni's farthest north 86° 34', being 20' beyond the point reached by Nansen.

As the month of May gradually passed, the members of the expedition gathered at Cape Fligely so as to maintain a steady watch for the return of the main detachment. In addition to the watch party there was also a party at Teplitz Bay, and word was sent from one place to the other as the days went by, while short journeys were constantly being taken along the shores on the lookout for the return of Captain Cagni and his companions. The provisions they had with them were only calculated to last until May 26, but the leader had expressed his intention, if he had not succeeded in reaching far enough to the north, of proceeding on reduced rations so as to attain as high a latitude as possible before returning. On the reduced scale they would be able to [Pg 281] subsist until June 10, but when that date arrived and still there was no sign of them, the remainder of the expedition became alarmed. The silent disappearance of Lieutenant Querini and his companions did not tend to alleviate their anxiety. A week passed without any sign; June 20th came and went, and the next two days saw the little community depressed and sad at what they regarded as the fatal silence. On the 23rd they barely exchanged words with one another, lest they should add to each other's sorrow by expressing the almost hopeless fear that every one felt. On the evening of that day the watch party at Cape Fligely had retired to their shelter when they heard the barking of dogs. Hastily going outside, they saw a man, with a sledge, advancing from the direction of Teplitz Bay. They waited in silence for him to come up, fearing he brought news of disaster. But their fears were turned to joy when he shouted the news that the third detachment had safely returned to camp, having penetrated as far as 86° 34' N., and so established the "farthest north" record of any expedition yet despatched to the Arctic.

The story Captain Cagni had to tell was one of persistent courage and determination. The straits to which he and his companions were reduced were shown by the condition of their equipment. [Pg 282] They had a single sledge in a very damaged state, a bottomless saucepan, a broken cooking lamp,

and a ragged tent. Their dogs were reduced to seven, the others having been killed to feed the survivors as well as the men. On the return journey the drift of the ice had carried them to the west, so that when they reached the latitude of Teplitz Bay they were many miles to the west of it. The condition of the ice had compelled them to go still further away before they were able to turn and head direct for the camp.

From March 11 to April 24 they marched steadily towards the north, and covered something like six hundred miles in ninety-five days. For the whole period of 104 days they marched 753 miles. During the first stage of the journey they maintained a speed of five miles a day, but during the second stage they doubled that, and covered, on an average, ten miles a day. From their experience they argued it was impossible to reach the Pole from any such base as that at Teplitz Bay while dog sledges were the only available means of transport.

With the return of this detachment the work of the expedition was at an end. The vessel was freed from the ice after a little difficulty, and, proving to be seaworthy, steamed out of the bay on August 14. They arrived at Hammerfest without mishap on September 5.

CHAPTER XIII
THE ANTARCTIC REGION

[Pg 283]

The Mystery of the South Pole—Ignored by Early Navigators—An Accidental Dutch Discovery—Captain Cook Sets Sail—Discouraged by the Ice—Turns Back in Despair—A Second Accidental Discovery—Weddell breaks the Barrier—Antarctic Land revealed—British resume the Search.

While the desire to penetrate into the mysteries of the North held the mind of mankind from the earliest times, the very existence of a similar world of ice, at the opposite pole, was undreamed of until a few centuries back. At the time when the world was generally held to be a flat disc, this is not to be wondered at, seeing that there could only be one other side possible under that belief, and that side the "under world," into which it was not desirable that human beings should ever penetrate. But the time came when the world was demonstrated to be a sphere, and the more thoughtful of men realised the necessity of having some theory wherewith to explain what form the world would take at the opposite pole to the North. The theory which found most general acceptance was that which contended for a similar distribution of sea and land at the South as was currently supposed to exist at the North Pole. It was argued that only by such a distribution [Pg 284] could the balance of the earth be maintained. Nor did the theorists stop there. The ancient geographers delighted their hearts by imagining a southern division of land and sea inhabited by identical animals, covered with the same kind of verdure and plants, and occupied by similar races of men to the North. In the absence of any evidence to contradict it, this theory held for many years.

In the Middle Ages, when the Portuguese and Spaniards were sailing from sea to sea, and later, when their successors, the Dutch, roamed the ocean, carrying their flags to the East and the West, none seem to have penetrated into the ice-bound regions of the South. The Cape of Good Hope was doubled. Cape Horn was sailed round. Australia was located, and even the south of Tasmania was visited. But further south the world was still unknown.

An explanation of this may be found in the fact that in southern latitudes the drift of ice is very much further away from the Pole than is the case in the north. In the northern hemisphere massive ice-floes are not encountered until the 70th parallel of latitude has been passed, while it is not until the 75th parallel is passed that the ice becomes so packed as to appear to be stationary. In the southern latitudes, on the other hand, drift ice is encountered in the 50th parallel, and by the time the 60th parallel is reached, the ice is found to be as close set as it is in [Pg 285] the 80th parallel in the north. In the islands off Tierra del Fuego the mountains remain covered with snow down to the water's edge through all the summer months, though the latitude is only 54° S.

This may be due, in a large measure, to the small quantity of land existing in the south, as compared with the north. The heat of the sun does not radiate from the sea with the same intensity as it does from the earth, whence the ice, drifting from the south into the oceans nearer the equator, melts more slowly, and is consequently enabled to travel longer distances, thus lowering the temperature of the surrounding atmosphere and still further delaying the melting process. At a comparatively recent period, the limit of the floes, in the southern oceans, was much nearer the equator than it is to-day, for the most southerly parts of Africa, Australia, and America all show unmistakable evidences of having, within recent times, been under a great ice covering.

It was not until 1600 that the first contact was made with the southern world of ice. Dirk Gerritz, a Dutch navigator, sailing with a squadron for the East Indies, was separated from his other ships while passing through the Straits of Magellan and was driven as far as 64° S. He discovered, in that latitude, a rocky coast line covered with snow. The discovery did not excite any great interest at the time, and, for a period of nearly two centuries, nothing was done to probe further [Pg 286] into the mysteries of the South. In 1769 an expedition was sent out under Captain Kerguellen to explore the regions lying to the south of the Cape of Good Hope. He was successful in locating

the group of islands, still known as Kerguellen Islands, and sailed thence to Australia, demonstrating that no land, other than these islands, existed between the Cape of Good Hope and Australia.

In 1772, Captain Cook, who had already done so much to reveal the southern hemisphere to the knowledge of man, left the Cape of Good Hope with two ships, the *Resolution* and the *Adventure*, in search of the continent believed to exist somewhere beyond the regions hitherto visited. In 48° 41' S. latitude, and 18° 24' E. longitude, a sudden fall in the temperature from 67° to 38° Fahr. was experienced. On the following day an iceberg, fifty feet in height and nearly half a mile in length, was sighted. The course was continued to the south, but the third day after sighting the first berg the sea had become so full of ice that no further progress to the south was possible, although the latitude was only 54° 50' S., the corresponding latitude in the northern hemisphere being that of the city of Hull.

Skirting the ice-packs and working always to the southward, the vessels managed to reach 55° 16' S. during the next three days, some few seals, penguins, and other birds being seen on the floating ice as the ships passed. The temperature was never above freezing, the sails were frozen [Pg 287] and the rigging covered with icicles. The fact that the ice was found to be composed of fresh water, convinced Cook that there must be land still further to the south, lying behind the ice-floes. He, therefore, kept on to the east, always sailing as far to the south as the line of the ice permitted. In reality, he was sailing round the Antarctic, from west to east, skirting along the ice limit. In January 1773 the vessels were in 61° S. and 139° E. longitude. A month later he was nearly five hundred miles to the south of the course Tasman had sailed when he discovered Tasmania, but still no land was seen amongst the ice. This being the summer season in the southern hemisphere, it was necessary to seek winter quarters to the north if the ships were to escape imprisonment in the ice for the season.

After a winter passed in the Pacific Ocean, Captain Cook took his ships again to the south, towards the end of the year, and by January 30, 1774, they were in 71° 10' S. latitude and 106° 54' W. longitude. Further progress to the south was barred by a line of high ice cliffs. Describing the circumstances Captain Cook wrote:—

"At four o'clock A.M. we perceived the clouds, over the horizon to the south, to be of an unusual snow-white brightness, which we knew announced our approach to field ice. Soon after, it was seen from the topmast head, and at eight o'clock we were close to its edge. It extended east and [Pg 288] west, far beyond the reach of our sight. In the situation we were in, just the southern half of our horizon was illuminated by the rays of light, reflected from the ice, to a considerable height. Ninety-seven ice hills were distinctly seen within the ice-field, besides those on the outside. Many of them were large and looking like a ridge of mountains rising one above another till they were lost in the clouds. The outer, or northern, edge of this immense field was composed of loose or broken ice, close packed together, so that it was not possible for anything to enter it. This was about a mile broad, within which was solid ice in one continued compact body. It was rather low and flat (except the hills), but seemed to increase in height as you traced it to the south, in which direction it extended beyond our sight.... I, who had ambition, not only to go further than any one had gone before, but as far as it was possible for man to go, was not sorry at meeting with this interruption, as in some measure it relieved us, at least, shortened the dangers and hardships inseparable from the navigation of the southern polar regions."

Returning again to the Pacific in order that his men might recuperate after their hardships in the ice region, Captain Cook made a third attack upon the Antarctic problem the following year—1775—when he sailed to the south along the 27th meridian of west longitude. In latitude 59° S. three rocky islets were discovered. They rose to a considerable height, one of them terminating [Pg 289] in a lofty peak shaped like a sugar-loaf, to which the name of Freezeland Point was given, not, as it might very well have been, in description of the land itself, but after the man who first sighted it. Far to the east of this peak there appeared a long coast line with lofty, snow-capped mountains, the summits often rising higher than the clouds. To the extremity of this coast the name of Cape Bristol was given. Land sighted still more to the south was named Southern Thule.

As there appeared to be more probability of success being won on this voyage, the ships proceeded to explore the seas in the neighbourhood of these new lands; but a repetition of the trials and difficulties met in the previous year brought the hopes to nought. Whichever way they sailed they encountered ice, either in massive bergs, or lines of cliffs, miles in length. On February 6, 1775, the cold hostility of the region daunted even the brave heart of Captain Cook. He decided to turn back, writing in his log: "The risk one runs in exploring a coast in these unknown and icy seas is so great, that I can be bold enough to say that no man will ever venture further than I have done, and that the lands which lie to the south will never be explored."

Modern achievement in the Antarctic regions forms a curious commentary on this outspoken [Pg 290] opinion of so intrepid an explorer as the man who laid the great island-continent of Australia open for the colonisation of the British. But for the time being the opinion ranked sufficiently with the authorities to put an end to all attempts to solve the mystery of the Antarctic. Years passed without anything being done to penetrate into the unknown, until, in 1819, Captain William Smith, commanding the brig *William*, on a voyage from Monte Video to Valparaiso, was driven as far to the south as 62° 30', in which latitude and longitude 60° W. he discovered a group of islands and named them the South Shetlands. The discovery was reported to the commander of H.M.S. *Andromache*, who at once sailed to the locality and further explored the islands. These were found to be a scattered group lying between 61° and 63° S., consisting of twelve fairly large

isles, and a number of small rocky islets. Several of the isles were mountainous, and one peak was observed which was estimated to be 2500 feet high. Beyond this brief expedition nothing was done by the Navy, but during the next few years a considerable amount of knowledge was gained by whaling captains who penetrated further to the south.

Amongst others, Powell, in 1821, discovered land to the south of the South Shetlands, naming it Trinity Land; while Palmer, an American skipper, sailed along a coast to which he gave the name [Pg 291] Palmer's Land. A Russian navigator, Bellinghausen, exploring to the south and west of the South Shetlands, located Alexander's Land, still more to the south than Palmer's Land.

These repeated additions to the general knowledge gradually discredited Captain Cook's assertion. The newly opened areas were found to be replete with whales, seals, and other commercially valuable animals, and ships of the mercantile marine continued to push nearer and nearer the Pole. In 1822 a firm of traders sent out two vessels to the Antarctic under the command of Captain Weddell, after whom the great Antarctic seal is named. The vessels were small ships in comparison with the modern build. One, the larger, was the *Jane*, a brig of 160 tons, and the other a cutter, the *Beaufoy*, 65 tons. As Captain Weddell had already done much geographical service in the South, his employers instructed him to do all he could to discover fresh lands, and to penetrate as far into the ice to the South as was possible. He succeeded so well in carrying out the latter part of his instructions that, on February 28, 1823, he carried the flag to 74° 1' S.

For some years nothing more of note was done, but in 1831, Captain Biscoe, on board the brig *Tula*, located land—named Enderby's Land, after his employers—in 65° 57' S. latitude and 47° 20' E. longitude. Wind and storms intervening, he was unable to do more than identify one [Pg 292] promontory, which he named Cape Ann. The year following Biscoe added to his record the discovery of Adelaide Island, Graham's Land, and a range of mountains he named after himself, Biscoe's Range. He landed on the newly discovered territory on February 21, 1832, and took possession of it in the name of Great Britain. Seven years later, on board the *Eliza Scott*, Biscoe found an island in 66° 44' S. latitude and 165° 45' E. longitude, the shores of which were so precipitous that no landing could be effected. Describing it, he wrote: "But for the bare rocks from where the icebergs had broken, we should scarcely have known it for land, but as we stood in for it we plainly perceived smoke arising from the mountain tops. It is evidently volcanic, as specimens of stones, or rather cinders, will prove."

Two years earlier the French Government had taken up the work the British Government had neglected from the time of Captain Cook's condemnation, and had despatched two ships, the *Astrolabe* and the *Zelée*, to try and get into higher latitudes than those reached by Weddell. The Government of the United States also sent out vessels to continue the work already so successfully done by American whaling skippers. The voyages did not add materially to the discovery of land, although some valuable scientific facts were observed and recorded.

The British Government then bestirred itself, and two ships, the *Erebus* and *Terror*, were placed [Pg 293] under the command of Sir James C. Ross, with Captain Crozier as second in command, to proceed to the Antarctic regions and explore them.

CHAPTER XIV [Pg 294]
VOYAGES OF THE *EREBUS* AND *TERROR*

A Fortunate Choice—Characteristic Southern Bergs—First Sight of the Continent—More British Territory—A Mighty Volcanic Display—Nearing the Magnetic Pole—The Antarctic Barrier—A Myth Dispelled—A Second Attempt—Held by the Ice—Third and Last Voyage—A Double Discovery.

The American and French expeditions having already selected areas for their operations, Sir James Ross, not wishing to clash with them in any way, directed his attention to that part of the Antarctic lying to the south of Australia and New Zealand as his sphere of operations. Fortune favoured him in this selection, for it is at this part of the Antarctic region—situated between the meridians of 160° E. and 160° W. longitude—that open water extends farthest into the high latitudes. He chose the meridian of 170° E. as the line on which to sail to the south. It was on this meridian that Balleny, in 1839, had found open water as high as 69° S. The *Erebus* and *Terror* were equally fortunate, and they were well to the south before they encountered sufficient ice to prove difficult to navigation. Mostly they encountered icebergs, and they were thus afforded excellent opportunities to note the peculiarities of the southern bergs, and to compare them with [Pg 295] those of the Arctic. There was a manifest difference in both form and structure. Those of the Antarctic showed little variety in shape, and in this they were in marked contrast to the Arctic bergs. The bergs of the South were very solid in appearance, with perpendicular grooves on the sides, and level table-top summits. In size they ranged from 120 to 180 feet in height, with a length varying from a few hundred yards to a couple of miles.

Land was first sighted on January 11, 1841, when the ships were in lat. 70° 23' S. and long. 174° 50' E. The appearance of the land suggested the tops of mountain peaks fully a hundred miles away. As the ships sailed on, other peaks showed above the horizon, both to the east and the west, and the majesty of their size left no room for doubt that they were part of an area of land

attaining to continental proportions. In his account of the expedition, Sir James Ross wrote: "It was a beautifully clear evening, and we had a most enchanting view of the two magnificent ranges of mountains, whose lofty peaks, perfectly covered with eternal snow, rose to elevations varying from 7000 to 10,000 feet above the level of the ocean. The glaciers that filled their intervening valleys, and which descended from near the mountain summits, projected, in many places, several miles into the sea, and terminated in lofty, perpendicular cliffs. In a few places the rock broke through the icy covering, by which alone we could be assured that land formed the [Pg 296] nucleus of this, to appearance, enormous iceberg."

The range was named Admiralty Mountains, and the various peaks after the different Lords of the Admiralty. With patriotic pride the leader recorded that "the discovery of this land restored to Great Britain the honour of having discovered the southernmost known land, which had been so nobly won by the intrepid Bellinghausen, and for more than twenty years retained by Russia."

The amount of ice along, and off, the shore prevented a landing being made, but it was found to be possible to get ashore on an island not far away from the mainland. The island was named Possession Island, in commemoration of the fact that on its shores the ceremony of taking possession of the newly discovered lands in the name of Great Britain was duly celebrated. Situated in lat. 71° 56' S. and long. 171° 7' E., the island was found to be of igneous formation and accessible only on its western shore. There were no signs of vegetation on the bare volcanic rocks, "but myriads of penguins completely and densely covered the whole surface of the island, along the ledges of the precipices, and even to the summits of the hills, attacking us vigorously as we waded through their ranks, and pecking at us with their sharp beaks, disputing possession; which, with their loud, coarse notes and the insuperable stench from the deep bed of guano, which had been forming for ages, and which may, at some time, be valuable to the agriculturists [Pg 297] of our Australian colonies, made us glad to get away again, after having loaded our boats with geological specimens and penguins."

As the voyage continued, the height of the mountains lying further to the south of Admiralty Mountains was observed to be from 12,000 to 14,000 feet, the majority being obviously of volcanic origin. While noting these characteristics, a phenomenon was witnessed which, for the moment, suggested that they were in the presence of a mighty volcanic upheaval. An angle was being measured, when, in the line of sight, an island, about one hundred feet high, suddenly seemed to rise from the ocean. All eyes were turned upon it, the dark colour of the new arrival standing out in such pronounced contrast with the whiteness of the ice around it. Then one, more observant than the rest, drew attention to the fact that a large berg previously observed at the place where the island had risen, had completely disappeared. At once the riddle was solved. The berg had turned over, and, as the lower portion was composed of earth-stained ice, it stood out in such strong relief against the other ice that the mistake was easily accounted for.

One of the mountains slowly coming into view on the horizon as the ships continued their way was so remarkably like Mount Etna in appearance that it was so named by the members of the expedition, but official requirements of the case necessitated another name being given to it. It [Pg 298] was entered in the record as Mount Melbourne, while another, lying beyond it, was named Mount Monteagle. These were the highest mountains seen up to that time, and presented an imposing appearance. Yet others were sighted in the course of a few days which quite eclipsed them. These were the two volcanoes which were named after the two vessels, Mount Erebus and Mount Terror.

Mount Erebus, 12,400 feet high, was in active eruption when first seen, and has been so on every occasion that man has looked upon it since. At the time of its discovery it was giving a display that was extraordinarily grand, the more so by reason of its surroundings. It was snow-clad to within a few hundred feet of its conical summit, while its huge base rested on a wide stretch of ice, gleaming and shimmering in the sunlight. Between the ice wall, hundreds of feet high, which marked the coast line, and the vessels, the water was blue and clear, reflecting the hue of the sky above. From the crater alternate bursts of smoke and flame were flung up, the rumbling sound of the explosions floating down through the frozen stillness in a faint echo like that of heavy distant artillery fire. In the official account it is described as follows:—

"A volume of dense smoke was projected at each successive jet with great force, in a vertical column to a height of between 1500 and 2000 feet above the mouth of the crater, when, condensing at its upper part, it descended in mist or snow, to be succeeded by another splendid [Pg 299] exhibition of the same kind in about half-an-hour afterwards, although the intervals between the eruptions were by no means regular. The diameter of the column of smoke was between 200 and 300 feet, as near as we could measure it. Whenever the smoke cleared away, the bright red flames that filled the mouth of the crater were clearly perceptible, and some of the officers believed they could see streams of lava pouring down its side until lost beneath the snow, which descended from a few hundred feet below the crater and projected its perpendicular icy cliffs several miles into the ocean."

So far as the leader of the expedition was concerned, there was another circumstance in connection with the position in which the ships were that appealed to him very particularly. He had, a few years earlier, succeeded in locating the North Magnetic Pole. Bearings, taken in the neighbourhood of the two volcanoes, revealed the fact that the South Magnetic Pole was only about 170 miles distant. An effort was made to penetrate to the South so as to sail over, or otherwise locate, the exact position of the magnetic pole; but the weather conditions, which had been so favourable to them up to that point, now told severely against them. The thermometer

fell rapidly, and the temperature went so low that the spray, flung up by the ships, froze, as it fell, into solid ice on the bows. Men were kept constantly breaking it away, but still it [Pg 300] accumulated, considerably interfering with the speed of the ships. Then they found in front of them a great wall of ice rising out of the sea, without a break or opening, to a height of some hundreds of feet. They sailed along it for miles, but the only change was that it increased in height until it towered a thousand feet above the level of the ocean.

Although it was then midsummer, and the warmest part of the year, the highest temperature during the day was never above twenty degrees below freezing. At the corresponding period of the season in the Arctic, every iceberg gives evidence of the warmer weather by commencing to melt, so that from all of them streams of water are to be seen pouring down the sides. But the bergs in the Antarctic showed no such streams of water. All were solid, and the heat of the sun at midday was not able to cause even the surface to thaw. During a gale, encountered in this locality, the waves, as they broke over the sides, covered the rigging and sails with hard, clear ice until it was almost impossible to handle the ropes or furl the sails.

As February went by and they were still unable to work nearer the site of the magnetic pole, the leader sought for a haven where the ships could pass the winter, so as to be ready to recommence the work directly the weather moderated with the approach of spring. But no such place was to be found, the mighty barrier of ice stretching away to the horizon with never a [Pg 301] break in its massive towering front. Nothing was to be done except turn the vessels to the North and make the best of their way into milder latitudes until the winter had passed.

On the voyage towards the North, one of those accidents occurred to the *Terror* which, fortunately for the welfare of sailors, are not possible nowadays. The bobstay of the bowsprit was smashed by coming in contact with a mass of floating ice. At the time the temperature was such that the bows of the vessel, as well as the bowsprit and its rigging, were all covered with ice, which the men had to be continually trying to keep clear. With the ship pitching to a heavy head sea, this was by no means easy, yet it was simple compared to the work of repairing the damaged bobstay. The men carrying out this work had to be slung over the bows, and every time the ship pitched, they were plunged into the freezing water, often being entirely immersed. The temperature of the sea at the time was twelve degrees below freezing, and two hours were occupied in effecting the repairs, man after man going over the bows to take the places of those who were literally frozen out. The commander, with pardonable pride, commented upon the pluck and hardy determination of his men in carrying out this arduous task.

As they sailed to their winter quarters in an easterly course, they passed the locality where the [Pg 302] ships of the American expedition had reported a discovery of land forming part of the great Antarctic continent. A sharp lookout was kept for it, but no indications were seen, and, when the two ships sailed over the spot where the continent was supposed to exist, the conclusion was forced upon the leaders that the Americans had been misled, as they had themselves on more than one occasion, into regarding the combination of ice and cloud as land. So suggestive of land did this combination often appear, that it was only by the most careful and critical observation that similar mistakes were not to be recorded against the *Erebus* and *Terror*.

Early in April they arrived at Tasmania, leaving that colony in the following July for New Zealand, where they stayed until December, when they sailed once more to the Antarctic.

It was the intention of Ross to sail to the South along the 146th meridian of west longitude, but the existence of heavy pack ice proved an effectual obstacle to their progress. The ships became involved in the pack, and only managed to force their way clear by the beginning of February. This meant a great loss of valuable time, for they were only able to reach 76° 42' S. latitude before they had to return. They sighted the great barrier of ice lying to the south, with what appeared to be high mountains, snow covered, rising behind. As no definite observations could be [Pg 303] made to demonstrate whether the heights were mountains or only the summit of the Antarctic ice-cap, the discovery was not claimed as being new land.

The vessels made their way to the Falkland Islands, where they passed the winter, and on December 17, 1842, they sailed, for the third time, to the South. The object of this voyage was to further explore Louis Philippe Land and reach as high as Weddell had done. Excellent progress was made, and, on the last day of the year, they sighted an island to which the name Etna Island was given, as it was a volcano greatly resembling, in miniature, the great volcano of Sicily. Further to the south high peaks appeared, and, with the new year, a number of islands, as well as what appeared to be portions of the mainland, were discovered. Amongst others, the expedition found and named Paulet Island, Cockburn Island, Snow Hill Island, and Mount Haddington, places which were to be made still more familiar over half a century later by the dramatic events which occurred to the Swedish expedition in 1901-3.

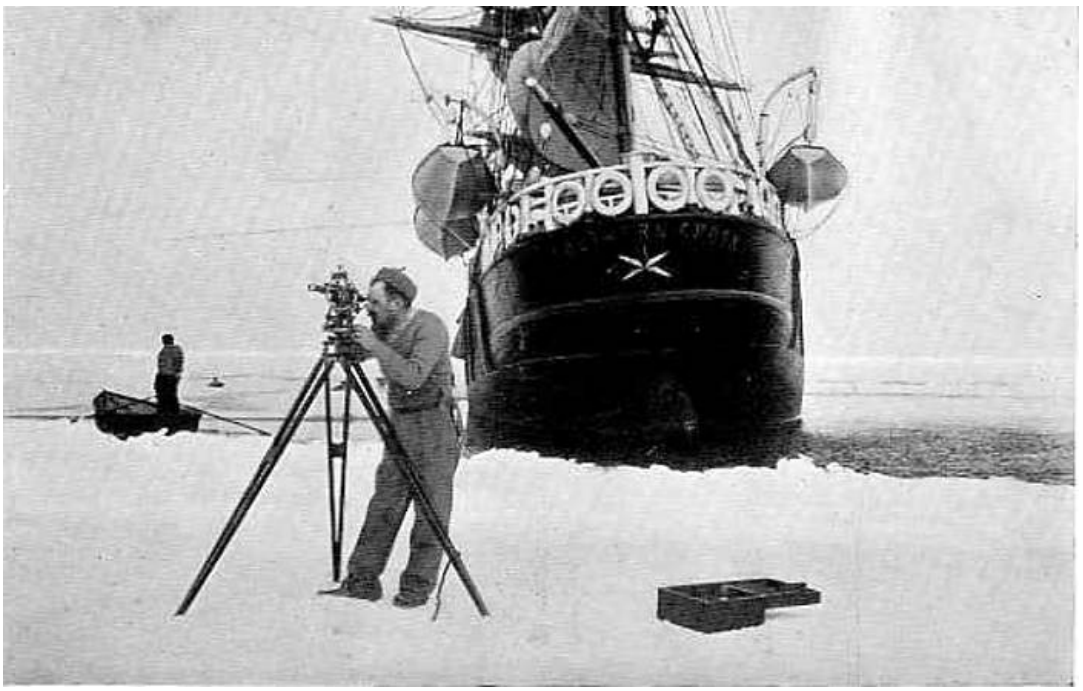
In addition to the discovery of land, it was also found that the waters off this coast abounded with whales, and, by the time that the two ships returned to the Cape of Good Hope, in March, they were able to claim, for the record of the third trip, the double discovery of land and of all the essentials for a profitable whaling industry. The ships had circumnavigated the Antarctic region, [Pg 304] and for many years thereafter whalers were the main visitors. Until 1898 no official British expedition sailed for the Antarctic, though there was a brief stay, just within the Antarctic Circle, of H.M.S. *Challenger* in 1874.

CHAPTER XV
THE *SOUTHERN CROSS* EXPEDITION

[Pg 305]

British continue the Work—Carrier Pigeons in the Ice—Withstanding a Nip—A Sea-quake—Cape Adare Station—A Cosy Camp—Edible Fish—Death visits the Camp—Penguin Peculiarities—A Derelict Blue-bottle—The Welcome Postman—A Thrilling Episode.

The first British expedition for many years was that which sailed from the Thames in 1898 on board the *Southern Cross*, under the leadership of C. E. Borchgrevinck, with the object of penetrating as far as was possible to the south and exploring the Antarctic continent, or as much of it as could be visited during a year's stay in those latitudes.



THE *SOUTHERN CROSS* IN THE ICE PACK.

At work with the Theodolite.

The leader of the party had already been on this continent in 1894, when he voyaged into the Antarctic on board a whaler. He had landed on South Victoria Land and Possession Island, and had reached as far south as 74° 10' S. He had discovered a sheltered beach, near Cape Adare, which he recognised as an ideal site for the headquarters of an exploring party equipped for a prolonged stay. On the same occasion he was fortunate in finding a lichen growing on the rocks of Cape Adare, which was the first instance of terrestrial plant life being observed in the Antarctic. Imbued with enthusiasm as to the prospects of successful observation being carried [Pg 306] out from this point, he strove to arouse public interest in the project. He found plenty of interest but not much financial support, until he had the good fortune to meet Sir George Newnes, Bart., in 1898. That gentleman caught some of the enthusiasm which actuated Borchgrevinck, and undertook to provide the necessary capital to enable the expedition to be formed and despatched. Thereafter there was no delay in the matter of organising the expedition. The *Southern Cross*, a small barque-rigged steamer of 276 tons, and built by Colin Archer, the builder of the *Fram*, was secured, and placed under the command of Captain Bernhard Jensen. With stores and equipment for some years, a crew of Norwegians, an efficient scientific staff, and a large kennel of Arctic dogs, she left St. Katherine's Dock on August 22, 1898, amid much popular demonstration and sailed for Tasmania.

Arriving at Hobart early in December, she took in further supplies, and sailed again, on December 19, for the Antarctic. On December 30, in latitude 61° 56' S. and longitude 153° 53' E., she encountered the first ice, and a few days later was among the floes. Some carrier pigeons had been taken on board at Hobart, and they were liberated when the vessel was well within the ice limit. One was absent for about a week before it returned to the ship, but the majority returned almost at once.

On January 14, 1899, land—Balleny Island—was sighted in latitude 65° 44' S. and longitude 163° [Pg 307] 38' E., and the *Southern Cross* was soon fast in a pack. Advantage was taken of the opportunity to lay in a store of seal flesh for the dogs. Two varieties were met with on the ice, leopard seals and white seals, both so unaccustomed to the presence of man that the explorers had no difficulty in walking up to them and killing them as they lay on the ice.

After being held for a week the first nip was experienced. The movement in the ice was very pronounced, and high pressure-ridges were thrown up. When the pressure caught the ship there was some uneasiness in the minds of those on board as to how she would stand the strain. She disposed of all fears, so far as she was concerned, by rising a clear four feet when the nip was at

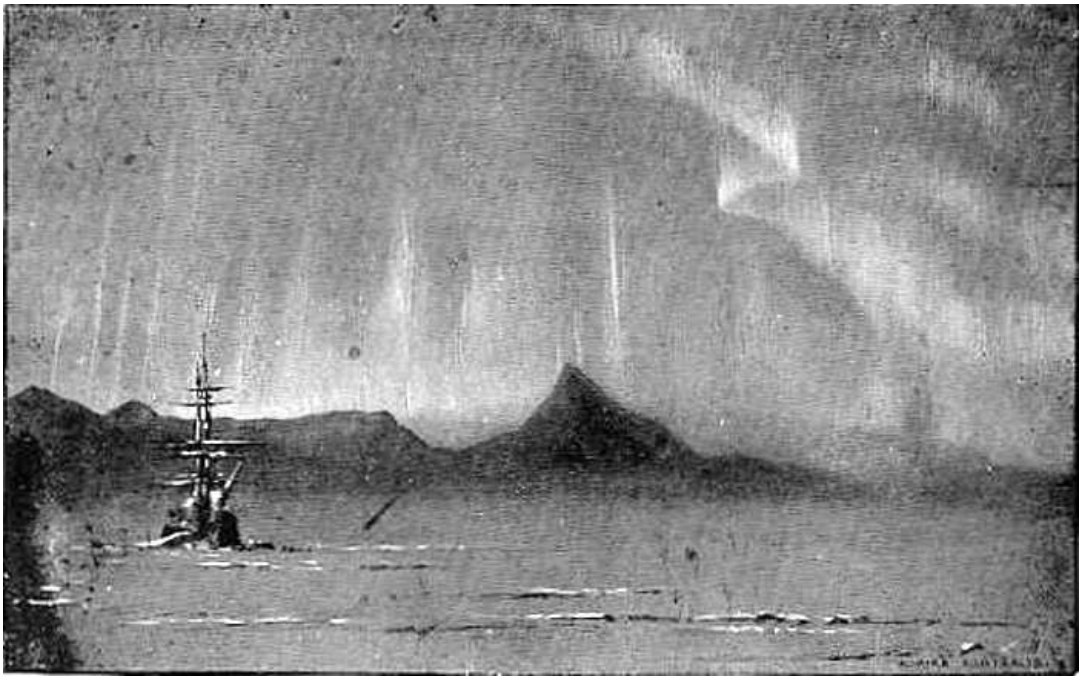
its worst, thereby adding another instance to the record of her builder as a cunning designer of ships for ice navigation.

For a period of forty-eight days they were held in the pack, and the ice then becoming more broken it was decided not to try any further to reach to the south of Balleny Island; instead, it was determined to go direct to Cape Adare, and establish the headquarters while the summer was still with them. On February 12, a few days after getting into open water, and when the vessel was making good progress under sail and steam, she was noticed to shake violently. No ice was in sight, nor anything else that could account for it, but there came a tremor which lasted for [Pg 308] a couple of seconds, followed by another after an interval of three seconds. The phenomenon was noticed by men in all parts of the ship, and no explanation could be given for it. A couple of days later they ran into heavy weather, during which the temperature fell so low that everything became covered with ice, an experience which was very similar to that which befell the ships forming Sir James Ross's expedition in 1842. The ship had to lay-to for two days until the weather abated, and, on the second day after resuming her course, land was sighted, and the *Southern Cross* steamed into Robertson Bay in sight of Cape Adare and the spot where the headquarters of the expedition were to be built.

The camp consisted of four huts, which were promptly erected and filled with the stores and equipment. The landing party, consisting of ten, made their home in one of the huts, utilising the others for the storage of provisions, equipment, and other impedimenta. The dwelling-hut was constructed with three doors, opening inwards, so as to facilitate the escape of the residents should they become snowed in. Between the outer and the middle doors there was a four-foot lobby, off which a small room opened on either side. One of these was devoted to the development of photographs and the storage of the more delicate instruments, while the other was the taxidermist's studio. Both these rooms were lined with wool and fur, and were entered [Pg 309] through small sliding trap-doors two feet above the ground. The interior of the hut formed one room, fifteen feet square, and with ten bunks constructed along the north and east walls, each bunk being closed in, so that the occupant could lie within, out of sight of the others, a very serviceable arrangement under circumstances where ten men are compelled to be in one another's company morning, noon, and night for several months at a stretch. The windows faced the west, and were double framed, with a space of three inches between the frames. The walls were also double, with *papier-mâché* packing between, while the ceiling was seven feet above the floor, also packed with *papier-mâché*, and had above it an attic where stores which required keeping fairly warm were placed.

Before they had everything completed on shore, a furious gale sprang up, and from February 23 to 26 all the energies of the party were required to keep the ship from being lost. She dragged her anchor and drifted dangerously near the coast before steam could be got up, and even when the engines were at full speed, she could barely do more than hold her own. Once, two steel cables and a hawser were run out round a jutting rock to afford her some stay, but they snapped like threads when the puff caught her, and for the rest of the time she was kept standing off and on under the lee of Cape Adare. During the winter the explorers had further experience of the [Pg 310] character of these southern gales, the wind often attaining a velocity of eighty-five miles an hour, representing a force capable of lifting up and carrying bodily away such a thing as a whale-boat; while the air was, at such times, filled with pebbles and small stones blown from the high lands behind the camp. On one occasion, so fierce was the strength of the wind, that it was found impossible to crawl on hands and knees, and with the assistance of a guide-rope, from the hut to the thermometer-box a couple of hundred yards away. The heaviest member of the party, a man over thirteen stone, was blown from the rope and nearly lost while attempting the journey.

On March 2 everything was in order at the huts, and the shore party landed to take up their residence. The flag presented to the expedition by the Duke of York was hoisted, the *Southern Cross* dipped her ensign to it, everybody cheered, and the vessel steamed out of the bay for New Zealand, leaving the devoted ten the only occupants of the great unknown continent which lies 2500 miles to the south of Australia.

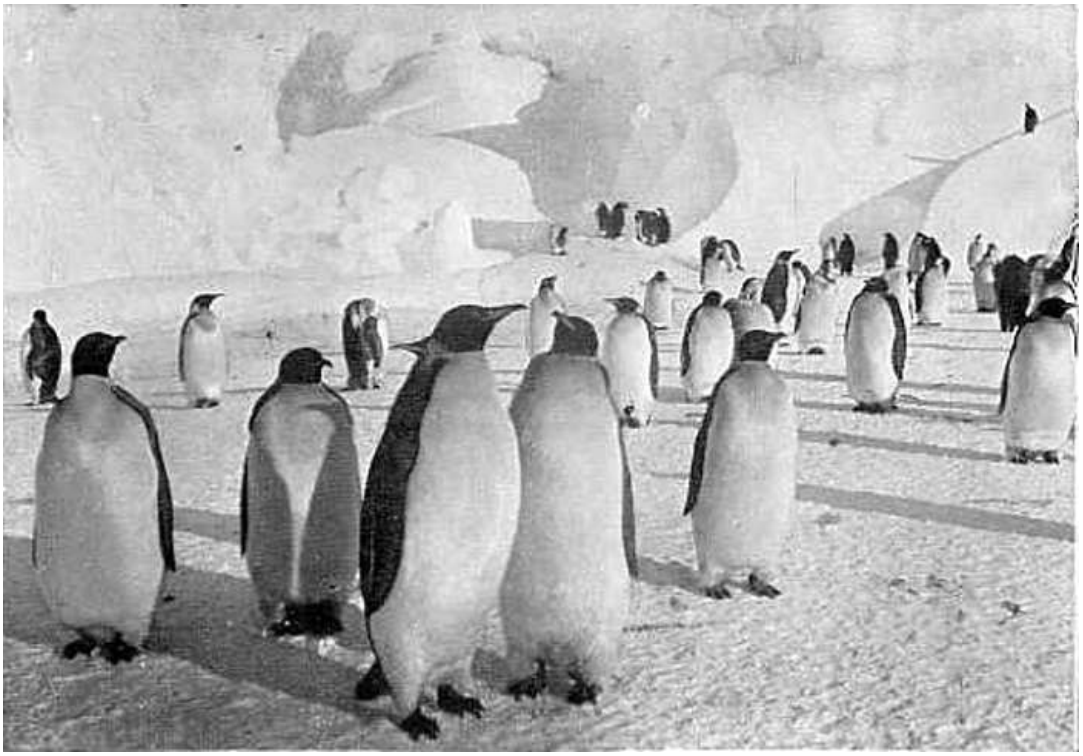


THE AURORA AUSTRALIS.

Drawn by Dr. E. A. Wilson.

They were not long before they commenced work. Cape Adare was explored and its height determined to be 3670 feet above sea-level. Vegetation, in the form of lichens, was traced up to a thousand feet, to which level it was found the penguins made their crude nests and hatched their young. Snow lay deep after three thousand feet, but no signs of life, vegetable or animal, were [Pg 311] discovered at that altitude. In the waters below and around the cape several specimens of algæ, medusa, hydroids, and other low forms of marine life were secured. In addition to these specimens it was also discovered that there was abundance of fish in the deeper waters of the bay. These were caught, both by net and line, and the members of the expedition were agreeably surprised when it was found that they were nearly all edible, for a constant diet of preserved food soon palls, even on the healthiest appetites. As the ice spread farther out over the bay the fishing was conducted through a hole cut through the ice, and it was no uncommon experience of the fisher to be suddenly confronted with the startled eyes of a seal which had risen from the depth below, under the belief that the opening was a blow-hole for his convenience.

On May 15 they saw the sun disappear below the horizon, above which it would not reappear until July 27. The sun, as it disappeared, presented a curious optical phenomenon. Its reflection appeared as a large red elliptical glowing body which gradually changed into a cornered square, while the sky, in its immediate vicinity, revelled in a blaze of colours. As the sun slowly sank, the colours grew in intensity, reaching the height of their vivid beauty as the last of the globe sank out of sight. The Aurora Australis continued to give them displays of colouring throughout the [Pg 312] time when the moon was not shining and the sky was otherwise dark. The temperature sank very low, at times, during the night, -25° Fahr. being recorded, soon after the sun went below the horizon, while later on the records were as low as -57° Fahr. Inside the hut, however, the cold was not severely felt, the construction proving excellent for the comfort of the men. The numbers of seals killed for the dogs enabled them to cover the roof with the skins before it became snowed over, while the ample supply of fur and woollen clothing kept the expedition well clad.



EMPEROR PENGUINS.

The most southerly inhabitants of the Globe.

From "The Siege of the South Pole," by Dr. H. R. Mill. By permission of Messrs. Alston Rivers, Ltd.

With one exception the winter passed without an untoward incident, the exception being the illness of the zoologist of the party, who, after being carefully nursed by the doctor and all the others, succumbed to internal complications and died on October 13. This was the only fatality during the expedition, and the loss of one out of so small a party naturally had a saddening effect on the survivors. Before he died, he indicated a spot a thousand feet up the slope of Cape Adare where he wished to be buried, and, needless to add, his comrades loyally carried out his last wishes. He died just at the time when the penguins, the study of which had so engrossed him, were returning over the ice to their nesting quarters. The first one arrived a few hours before his death, and it was taken to him, at his request. The place where he sleeps is on the line where [Pg 313] vegetation ceases and above which the penguins do not build.

It was a pity he did not live to see the return of the penguins, for they came in myriads with the approach of spring. They advanced over the ice in a long line, walking in single file, and apparently in detachments of about sixty birds in each. They must have marched for many miles, as there was no open water nearer from whence they could have come, and they are not able to fly. As soon as they reached the land they spread out in such a way as to suggest that each pair went to the nest they had occupied before. These were simple affairs, consisting of little more than a few pebbles arranged in a ring on beds of guano. As a rule, two eggs were laid in each nest, and, for a month, male and female shared the labour of sitting on them, commencing in November and remaining on the nests until the young came out in December. The chicks were fed by the parent birds until they were fairly well grown, when they were driven into packs and left to look after themselves, with only occasional help from the older birds. When they were able to look after themselves, without further assistance, the parents departed. On such occasions a curious habit was observed. The birds of a detachment seemed to wait for one another until all were ready, when they would strut, in a solemn procession, to the water's edge. Usually the white breasts of the birds were spotlessly clean, but the time they spent on the nests made them [Pg 314] very dingy in appearance. As they strutted down to the water's edge they were all sadly in need of a bath, yet, on arrival at the edge, they would stand about, shiver, flap their diminutive wings, and manifest all the hesitation which is shown by timid bathers when about to take a plunge. Nothing would induce them to enter the water until they were ready in their own good time, attempts, on the part of the explorers, to drive them in, merely resulting in the birds turning round and strutting on to the land again. When at length the time came for the plunge, one would flap his wings, utter a cry, and take a header, whereupon the others would follow, one after the other, all in line and so rapidly that they presented the appearance of a stream being poured out of a bottle. The plunge over, they returned to the shore, spotless and clean.

As the gales were not over when the birds were sitting, they were watched to see how they would prevent themselves from being blown away by the fierce gusts. Almost as soon as the barometer gave indications of the approach of a gale, the birds were seen to turn their heads towards the south-east, the quarter from whence the wind came, and lie close to the ground, with their heads down and their breasts pressed close to it. On no occasion was a bird seen to be blown away from the nest.

During December, when the weather became milder, the interesting discovery was made that [Pg 315] insect life exists on the Antarctic land. Some specimens were found among the mosses growing on the shore, and the excitement which followed the discovery led one of the Finns, two of whom were included in the party, to unconsciously play an effective practical joke on the others. He found a dead blow-fly in a case of jam and brought it to the hut as a trophy. For a time there was even greater excitement, until some one thought to ask where the fly had been captured.

On January 29, 1900, the *Southern Cross* returned. She arrived in the bay at a time when the explorers were sleeping after some heavy journeys. The captain landed, and walking up to the hut, pushed the door open and entered. He had the mail-bag with him, and flung it on the table with a loud cry of "Post." In a moment the bunks were empty, the sound of a strange voice rousing all the men, to say nothing of the prospect of receiving news from the world out of which they had been so long.

As there was no time to be lost, if they were to penetrate further to the South before the mild weather passed, they moved on board the ship as soon as they could, and by February 2 the *Southern Cross* steamed away again with all on board. They made excellent progress, passing Mount Melbourne on February 6, approaching near enough to the coast opposite to Mount Terror [Pg 316] to permit them to land, after which they steamed along the great ice-barrier until they found an opening, into which they steamed, so as to enable a sledge party to land and push forward to the South. It was this sledge party which reached "farthest South," being on February 16 in latitude 78° 50' S., the highest latitude reached up to that time.

But it was while they were ashore at Mount Terror that one of the most exciting incidents of the whole journey occurred. The party landed at a small beach which lay under cliffs towering five hundred feet above. In order to get photographs of it, the boat was despatched back to the ship for a camera, while Borchgrevinck and Jensen remained ashore. The boat had not gone very far when a great roar sounded in the air. Those on shore feared for the moment that a slide had begun in the cliffs over their heads; but it was not the rocks that were moving. A mighty glacier, which entered the sea near where they were standing, was shedding an iceberg from the parent mass, and the noise was caused by the rending of the ice as the millions of tons mass tore itself free. The beach was barely four feet above the water, and, as the berg crashed into the sea, it sent up a great wave that swept along the coast. The men on the beach barely saw it coming before it was over them. Pressing themselves against the face of the cliff at the highest point they could reach, they held on for dear life while the icy water surged up and over them. After the first [Pg 317] wave had passed, others followed, though these only reached up to their arm-pits, and had it not been for a projecting point of rock, which served to break the force of the waves, there is little doubt but that both would have been swept away. The full force of the waves was shown only a few yards away from where the two had stood, stones being torn loose and the mark of the water being left twenty feet up the face of the cliff.

Having reached "farthest South," the homeward journey was begun on February 19, and three days later the *Southern Cross* steamed into Port Ross, in the Island of Auckland. The expedition was then practically at an end, having succeeded so well in its objects that it was able to claim that it had located the Southern Magnetic Pole as being in latitude 73° 20' S. and longitude 146° E.; had discovered insect and plant life on the Antarctic continent; had reached the farthest South, and had added very considerably to the geographical and scientific knowledge of the world.

CHAPTER XVI [Pg 318]
THE REVIVAL OF ANTARCTIC INTEREST

Modern Means and Methods—Private Enterprise leads—The *Valdavia*—The *Belgica* Expedition—International Action adopted—The German Expedition—An Ice-bound Land—Fresh Trade-Winds.

Towards the end of the last century there was a distinct revival, in European scientific circles, of interest in the still unsolved problems of the frozen South. Many causes contributed to this. The gradual narrowing of the northern sphere, and the activity displayed in that region by the Americans, to whom it especially appealed, led the European geographers to remember the great amount of work yet to be done in the South. The achievements of the Ross expedition, which had satisfied public curiosity for the time being, now only stimulated curiosity as to how much more could be ascertained by the use of modern steamships and all the other improved appliances that had done so much to help in Arctic work.

For a time private enterprise operated, and several vessels were despatched, from time to time, some with excellent results; but something more than private enterprise, working individually, was required if all the benefits of a thorough exploration were to be obtained. In her brief [Pg 319] experience in 1874, H.M.S. *Challenger* examined, by means of sounding and dredging, the floor of the ocean to the south of Kerguellen Island. The evidence collected pointed to the existence, still further to the south, of an area of land approaching continental dimensions. In 1898 a German steamer, the *Valdavia*, with Professor Carl Chun on board, left Cape Town, rediscovered Bouvet Island, which had not been visited from the time it was first seen by Captain Cook, and

collected further evidence, by sounding and dredging, of the existence of extensive land nearer the Pole.

A Belgian, M. Adrien de Gerlache, fitted out a ship, the *Belgica*, and sailed from Antwerp, in 1897, to explore the area lying to the south of South America. In the early part of the voyage a new strait was discovered between Danco Land and Palmer Land, but in February 1898 the ship became involved in the ice and remained in it for a year, drifting between 69° 40' and 71° 35' S. latitude and 80° 30' and 102° 10' W. longitude. During the winter they had a period of seventy days' darkness, spent on board, the effect of which was extremely depressing to their spirits and injurious to their health. It was found that the sea floor had shoaled up to the shallow depth of from 200 to 300 fathoms, suggesting the proximity of a large area of land, the actual existence of which, however, the members of the expedition were not able to observe. [Pg 320]

An international agreement was then arrived at, through the influence of the International Geographical Conference, under which three nations, Germany, Sweden, and Great Britain, undertook to despatch to the Antarctic, three separate expeditions, one from each country. They were to sail from Europe in 1901, and while working on similar lines, and as much in common as was possible, each was to have its distinct sphere of operations. The British undertook the exploration of that area south of Australia, where Ross had located the volcanoes Mount Erebus and Mount Terror; the Swedes selected the lands lying to the south of South America, while the Germans gave their attention to the seas already visited by the *Valdavia*.

POLAR OUTFIT USED BY THE *BELGICA* EXPEDITION.

Tent, Sledge and Snow Shoes.

The German expedition sailed from Kiel on August 11, 1901, on board the *Gauss*, and was under the command of Professor Erich von Drygalski. Their first objective was Kerguellen Island, and the chief work carried out was of a purely scientific character. It was originally intended that all the expeditions should return to Europe after passing one winter in the Antarctic. The Germans did so, but both the Swedes and the British were unable to carry out this part of the programme, the former in consequence of the loss of their ship in the ice, the latter because their ship was hard and fast in the southern ice. The Germans were more fortunate in escaping the ill effects of [Pg 321] what was an unusually severe ice season; but the other nations, by the longer stay they had in the frozen regions, were able to return with a much more comprehensive collection of information.

Leaving a small party at Kerguellen Island, the *Gauss* sailed to her allotted area, already revealed by the voyages of Cook, Bellinghausen, Biscoe, and Kemp. The ice barrier prevented her reaching a very high latitude, but the connection between Knox Land and Kemp Land, appearing as isolated coasts on the old maps, was proved. On this land, during the winter, large quantities of ice are formed, to drift out to sea in the form of huge packs which effectually guard the shore from intrusion. Forcing a way through the pack, the *Gauss* found a brief stretch of open water, the depth of which was found to shoal rapidly from 1500 to 120 fathoms. This led them to a rugged, steep coast line, occupying the position of what Ross had defined in 1841 as "ice cliffs." The land was too high and steep to permit them to land, and the ship, becoming involved in the ice within sight of it, winter quarters were established on the ice.

Severe gales hampered them in their work, but otherwise the winter passed without any untoward incidents. The rocks composing the cliffs of the coast were found to be ancient crystalline formations. The interior of the land was entirely covered, so far as could be seen, by a solid ice-cap forming one of the most extensive glacial regions now known to exist. It seemed to [Pg 322] be slightly receding, though no definite evidence of this could be obtained in so short a time as that at the disposal of the explorers.

One of the most useful observations made was that relating to the direction of the winds. The trade-winds blowing in the "roaring forties," and which serve so good a purpose in carrying ships round Cape Horn and the Cape of Good Hope to and from Australia, blow from the west towards the east. At the position occupied by the *Gauss*, inside the Antarctic Circle, it was noticed that the prevailing winds were from east to west. Thus, if a clear passage could be found, vessels sailing round the southern ocean could select either an easterly or a westerly route as suited them best, instead of having, as at present, to follow that indicated by the wind.

At the expiration of the period allotted to them for their stay, the explorers were able to get free from the ice, and return to Germany. In this, as has been said, they were the only one of the three expeditions keeping to time. They arrived home after an absence of twenty-eight months, fourteen of which were passed in the South Polar ice.

CHAPTER XVII
THE SWEDISH EXPEDITION

[Pg 323]

Sails in the *Antarctica*—Argentine Co-operation—First Antarctic Fossil—Building the Winter Station—A Breezy Corner—Electric Snow—A Spare Diet—New Year Festivities—The Missing Ship—Relief that never Came—A Devastating Nip—Castaway—The Unexpected Happens—A Dramatic Meeting—Rescued.

The expedition to explore the land lying in the Antarctic region to the south of South America, which, under the international arrangement of 1895, was allotted to Sweden, was placed under the command of Professor Otto Nordenskjold, with whom was associated Professor Johan Andersson, both members of Swedish Universities. The steam barque *Antarctica*, Captain C. A. Larsen, who had already had considerable experience in the Polar regions, was selected as the vessel in which the expedition was to proceed to the field of operations. The original plan was for the expedition to leave Europe in 1901, and to be back in Sweden by May 1903.

The detailed plan was to leave Sweden as early as possible in the autumn of 1901 for the South Shetlands, whence the vessel was to go to the east coast of the land known to lie to the south of those islands. Penetrating as far to the south as possible, a station was to be established at any [Pg 324] convenient point and a party of six left there, with the necessary stores, apparatus, and equipment, to spend the winter, while the ship was to return north to the Falkland Islands and spend the winter with the remainder of the expedition carrying out scientific investigations at Tierra del Fuego and South Georgia. On the arrival of spring the *Antarctica* was to pick up the members of the expedition who might be in Tierra del Fuego and South Georgia and proceed south to the winter station, take on board the members who had passed the winter there, and return at once to Sweden.

Unfortunately for the successful carrying out of the plans, the summer of 1902-3, in the Antarctic regions, was the coldest and the worst for ice conditions that has ever been recorded, and the expedition, instead of being able to carry out the plans laid down, experienced, instead, a series of unexpected happenings which was fatal to the exact working out of detail, but was rich in exciting and romantic episode. The Frozen South, like the Frozen North, will not yield its secrets to the first comer who demands them. The resources of the ice world, at either pole, are too vast to be overcome without a fierce and prolonged struggle.

Instead of one winter, the Swedish expedition spent two in the ice region, while, during the second, all the members of it were living on the ice, though as three separate parties, each within a few miles of the other, and all, more or less, ignorant of the proximity of their comrades. The [Pg 325] peculiar circumstances under which they became separated, their experiences during that time, and the dramatic manner in which they were reunited and rescued, will form the chief incidents of the following pages.

Leaving Sweden on October 17, 1901, the *Antarctica* proceeded to South America, where, at the request of the Argentine Government, a representative of that country, in the person of Lieutenant Sobral, of the Navy, joined the expedition. In return for this courtesy the Argentine Government offered to do all it could to assist the expedition. How magnificently it carried out its promise will be seen later.

Early in January the ship was amongst the ice, making her way as fast as she could to the neighbourhood of Erebus and Terror Gulf, where it was hoped a suitable site would be found for the winter station. The state of the ice, however, was not favourable to this scheme, and, by the time Seymour Island was sighted, it was evident there was little chance of working into more southern latitudes. Nearly ten years before Captain Larsen had visited this island, and had taken from it specimens of fossil wood and molluscs, the first fossils ever discovered in the Antarctic.

Before landing on it and seeking for more geological specimens, the leader determined to try [Pg 326] whether there was any chance of penetrating to the South from a more westerly longitude. The ship was turned on to a westerly course and kept on it until the beginning of February, but as no opening was to be seen through the ice to the south, her head was turned to the east once more, and she returned to the neighbourhood of Seymour Island. On February 10 the vessel was in Sydney Herbert Bay, which formed the hitherto unvisited part of Erebus and Terror Gulf. As it

was obviously impossible to get farther to the south, Nordenskjold decided to establish the winter station on one of the islands in this vicinity.

A brief visit to Seymour Island did not reveal the wealth of fossil-bearing strata that was expected. Paulet Island was visited and an interesting circular lake was discovered, lying in a circular range of hills. The banks of the lake bore ample evidences that at one time there had been great volcanic activity at the place, and the lake was evidently formed in the hollow of the extinct crater. The place did not appeal to them as a site for the winter station, and, as further journeys revealed another island on the other side of Seymour Island, where there was a beach which appeared to be sheltered from the southward, the point whence the most violent winds blew, it was decided to build the hut there.

The *Antarctica* anchored in the bay opposite the beach and rapidly unloaded the camp equipment. When everything was almost landed, a movement in the ice at the mouth of the bay [Pg 327] compelled the ship to stand out into open water, so the party of six, who were to spend the winter on the island, hastened ashore, where they had their hut to build and all preparations to make without the help, which had been counted upon, of the crew of the vessel. But this did not weigh heavily upon them, and they set to work with a will. In the course of a week, the *Antarctica* was able to get into the bay again and to land the remaining stores; but by that time the hut was up and the adventurous six were almost settled down to their routine work.

A day or so after landing, Nordenskjold discovered that the island they were on—named Snow Hill Island—was peculiarly interesting from a geological point of view, for he found fossils of ammonites, a token of ancient life of the region which alone would have made the expedition memorable.

During the first month of their sojourn, the party were fully occupied in organising their scientific work and in taking preliminary trips through the island. At an early date they satisfied themselves that Admiralty Bay is a Sound, and that the portion of the continent extending to the vicinity was more in the nature of a group of scattered islands, with deep sounds passing between them, than a continuous stretch of mainland. The microscopical examination of the soil revealed the presence of numerous bacteria, while the examination of the waters showed that the [Pg 328] lower forms of life were well represented. On the land there were abundance of penguins, seals, and migratory birds; but otherwise there was an absence of the animals found throughout the Arctic regions.

On one point they had reason to be dissatisfied with the position selected for the station. At the time the site was chosen it was believed that they would be well sheltered from the force of the gales. The reverse was found to be the case. Gales came from the south-west for days together and blew with a velocity that was astounding. On one occasion a large bag of fossils, left on the steps of the hut, was blown yards away; while on another, a barrel of bread was carried off, and a whale-boat was lifted over a second boat and flung against a mass of ice, a distance of twenty-one yards. When the boat was found, after the storm had abated, it was lying keel upwards, with the greater part of one side smashed in. The oars, thwarts, and inside planks were scattered and broken, even the zinc plating being stripped off and blown away.

A curious phenomenon was observed during the progress of these gales. The air became saturated with electricity to such an extent that the metal parts of the instruments gave shocks to the fingers when touched, while the tips of a man's fingers glowed with luminosity when outside the hut in the dark. As a similar thing occurs in the Sahara during the progress of a simoon or [Pg 329] sand-storm, it was considered that the amount of electricity was caused by the friction set up by the particles of snow carried along in a never-ending cloud by the gale. The rate at which the dry particles of snow moved was tremendous. An extra severe gale carrying away the wind-gauge, it was not possible to keep a complete record of the velocity of the gales, but from the records secured, it was demonstrated that, during the first half of June, if the hut had travelled with the same velocity as the wind rushed past it, a distance of 14,900 miles would have been covered, or as far as from the hut to Sweden and half-way back.

As winter approached, the storms obscured the sky and the sun was not often seen. They were not far enough south to lose it altogether, and all through the winter they had the benefit of its presence, though not for many hours at a time. When it did come, however, it came with great magnificence. After a series of storms they saw it rise one morning, and the spectacle is described as gorgeous and beautiful. "The morning was so clear and bright that I absolutely do not know with what to compare it," Nordenskjold wrote. "A faint violet light lay along the horizon and over Cockburn Island, which forms the central point of view from the station. The sky gleams with a darker blue, and across it float long streamers of ribbon-like clouds, which shine and flame [Pg 330] in red. But ever in the colours there is something pale, a paleness which predominates with indescribable delicateness of tone in the tints of the horizon, and in the blue and white shades of the stretches of land, which contrast so strongly with the dull brown of our immediate neighbourhood, and even with the sharply defined ice wall of Snow Hill. At about ten o'clock a glowing spot begins to be visible on the horizon, and, presaged by a perpendicular pillar of fire, there rises what would be the orb of the sun, but which, in consequence of refraction, appears to us to be a broad flaming moving belt of fire. On each side of the sun there are two shining, intensely rainbow-coloured belts, forming parts of a ring, which, however, can be seen but imperfectly. The sun rises higher in the heavens and assumes by degrees his ordinary appearance, whereupon these accessory phenomena disappear, together with the moon, whose crescent has been visible in the sky until the last possible moment."

The winter passed without misfortune, and with the approach of spring preparations were made for the first long sledge journey. On this, and other journeys, they succeeded in travelling long distances over what was often heavy ice, on two meals a day. The first, which was the more substantial of the two, consisted of pemmican made into a thick porridge-like soup, the nutritious [Pg 331] qualities of which were felt even as it was being eaten. This was followed by coffee, meat, biscuits, butter and sugar. On such a meal the men existed and travelled all day, making no stop until the evening, when they had their dinner, consisting merely of pease or lentil soup, meat, chocolate, bread, butter, and, sometimes, bacon. Immediately they had eaten this frugal repast they were in their sleeping-bags and asleep.

After climbing the ice ridges, which rose along the shores of the mainland, they succeeded in reaching the land itself on October 18, though the only evidence of it was the appearance of some dark-coloured rocks which showed above the ice. They were then in 56° 48' S. and 62° 11' W. This was as far as they penetrated, and the rapidity of their movements is shown by the record they set of thirty-eight and a half miles in one day. Other shorter trips taken over the islands in the vicinity of Snow Hill Island resulted in the discovery of important fossils, including the bones of an unknown vertebrate animal, some mammoth penguins, as well as the leaves of different kinds of pine trees and several ferns. These were all regarded as belonging to the Tertiary period.

With the New Year of 1903 they indulged in festivities, not only on account of the season, but also in anticipation of the early arrival of the *Antarctica*. As they had no idea of spending two winters [Pg 332] in succession in the station, they had not been rigidly economical with their stores. There was no shortage in anything, but there was not enough to last them during a second winter on the same scale that they had lived during the first. When the days went by and grew into weeks, and no ship appeared, they began to take note of these things. For a time they kept on the lookout, and, at night, would conjecture at what hour on the following day the *Antarctica* would appear, and by whom she would first be seen, but as the month slipped by and no ship appeared, they dropped the subject, with one accord, and, instead of discussing when the vessel would arrive, they talked about the best way of spending their second winter at the station. The penguin roosts were visited and large numbers of the birds were killed and stored away for winter food, while seals were slaughtered to provide food for the dogs and clothing for the men. Although they never discussed it, the idea each man had about the non-arrival of the *Antarctica* was that she had become caught in the ice, and so prevented from reaching them until it was too late in the season. What had actually occurred never suggested itself.

After passing the winter as was arranged, the *Antarctica* had proceeded to Tierra del Fuego and South Georgia, had picked up all the members of the expedition, and had steamed away to the [Pg 333] South so as to reach the winter station early in January. As she advanced, however, she found the sea so blocked with ice that she could not follow the course she had sailed the previous year. When she arrived at Hope Bay, some miles to the north of the station, Professor Andersson and two companions landed with sledges and sufficient provisions to last nine men for two months. It was their intention to proceed over the ice to the station, while the *Antarctica* steamed away to the west, in the hopes of finding an opening through the ice which would enable her to reach the station. If, on the arrival of the relief party at the station, the *Antarctica* had not appeared, they were to return, with the other six, and wait for the ship at Hope Bay.

Before proceeding over the ice to the station the three built a small stone hut, where they stored the greater portion of the stores, and with the remainder on their sledge they started on their march. But the ice, which had been too compact for the ship to penetrate, was not compact enough for them to traverse. Delay after delay was caused by leads and channels, until it was forced upon them that they would not be able to reach the station until the summer was over and the ice formed solid over the sea. As by that time the *Antarctica* ought to have arrived at the station, they decided their best course was to return to the depôt at Hope Bay and await her advent. They did so, but no ship appeared, and, with the end of summer, it was clear to them that [Pg 334] something had happened either to the ship or at the station, and that the only thing left for them to do was to make themselves as comfortable as they could. With the limited store of provisions they had with them it was necessary to go on short rations at once, though the capture of some penguins, the shooting of seals, and the catching of fish by means of a hook made from a strap buckle and a line of sealskin torn into strips, augmented their stock of food and gave them, also, in the blubber of the seals, fuel and light. Cooped up in their little stone hut, which was only built large enough, in the first instance, as a place to hold their stores, they went through the dreary months of winter with a contentment which was the very acme of heroism.

Meanwhile the *Antarctica* had steamed away to the west, and then, a chance offering itself, had stood to the south until she was in the latitude of Paulet Island. She turned to the east, heading in the direction of the station on Snow Hill Island, when the ice caught her. For days she remained in the pack, those on board chafing at the delay and trying every device to get her free. But the ice was too strong, and at last they were forced to admit that they were caught for the winter. This was bad enough, but there was worse to follow. A movement began in the pack, and a pressure-ridge started directly for the ship. It was upon them almost before they realised it, and [Pg 335] the crash with which she heeled over told its own tale. The ice had torn a length of her keel away, and had made a hole in her which it was impossible to repair.

Everything that could be got out was thrown on to the ice, and the ship's company formed themselves into sledge parties to convey as much as they could to the nearest land. This was Paulet Island, where they arrived after an arduous march and at once set to work to construct a

shelter for the winter, which was now upon them. There they stayed, within a few miles of the station, and of the other party at Hope Bay, but all in ignorance of the proximity of one another, and quite unable to communicate.

With the first sign of approaching spring the men at the station made arrangements to resume their expeditions and complete the survey of the islands in their immediate vicinity. The first trip was in the direction of Hope Bay, and the party had been out some days when, in the dim light, one thought he saw an unusual dark patch on the ice in the distance. He drew his companion's attention to it, but neither cared to trust their eyes. As they approached nearer, the dark patch resolved itself into the figures of men, and a still nearer view revealed two such extraordinary creatures that one of the men from the station thought it would be as well to have a revolver [Pg 336] ready in case of emergencies. The two figures were in black garments, with black caps on their heads, and their hands and faces were as black as their clothes, while the upper parts of their faces were hidden by curious-looking masks. Beside them was a sledge.

With considerable uncertainty the men from the station approached, and were not reassured when they were asked, in English, how they were. "Thanks; how are you?" they replied. "Don't you know us?" one of the strange-looking creatures asked. "We're the relief party. Have you seen the ship?" Then a third figure appeared from behind an ice hummock where he had been preparing a meal. They were Professor Andersson and his companions, who were on their way, for the second time, to the station.

Without loss of time the reunited comrades made their way to the station, where soap and water and a fresh supply of clothes soon transformed the appearance of the three who had had so trying a time in the little stone hut at Hope Bay. But the situation was still fraught with anxiety, now that both parties realised something very serious had happened to the *Antarctica*. It was impossible for them to determine whether she had gone to the bottom, or had been beset in the ice. Only one thing was clear, and that was, that they would all have to stay where they were until some help came to them. While they were still debating what chances there were of any [Pg 337] coming before another winter went by, they were startled, one day, by the arrival of visitors. These proved to be a search party from the Argentine cruiser *Uruguay*, which the Argentine Government had despatched as the *Antarctica* had not returned at her appointed time. Help had come at a time and from a quarter least expected.

But the news that the cruiser brought added very much to the fears the explorers entertained as to the safety of the *Antarctica* and her crew. If she had been beset, some of her company could have reached the station over the ice while it was still compact, or, if she was still afloat, she ought herself to have been able to reach them. The absence of all news made the members of the expedition gathered at the station more than uneasy as to the fate of their comrades.

The morning after the Argentine officers arrived, one of the men, looking out of the hut, exclaimed that eight men were coming over the ice. Under the impression that they were some of the cruiser's crew sent to assist in removing the baggage from the station to the ship, he went out to meet them, walking slowly, as he tried to decide what was to be done if they could not speak any language he knew. The others in the hut, watching him, saw him suddenly leap forward and then turn to them and wave his arms. "Larsen! Larsen is here!" they heard him shout.

With one accord they rushed out after him, and in a few moments were eagerly shaking hands [Pg 338] with the eight men, who were a detachment sent out from the camp on Paulet Island to ascertain whether the party at the station was still intact or whether it had been rescued. The news was sent to the cruiser, and soon all the members of the expedition and their baggage were on board and the ship was steaming for Paulet Island.

On arrival off the coast no signs of the remainder of the crew of the *Antarctica* were to be seen, so the whistle was blown. The men at the time were all in the shelter, sleeping, and the sudden sound of the whistle roused them. For the moment they could not believe their ears. Then one of them looked out and saw the ship, and the shout with which he and his companions greeted the sight rang far out over the water.

Professor Andersson and his two comrades had left the *Antarctica* on December 29, 1902; the ship was nipped on January 10, 1903; and the castaways arrived at Paulet Island at the end of February. They had lived in the shelter they constructed, subsisting mostly on penguin, until November, when the Argentine cruiser arrived. Only one man had died.

The expedition reached Buenos Aires on November 30, 1903, having, during the time they had been in the Antarctic, collected a mass of interesting and valuable scientific information.

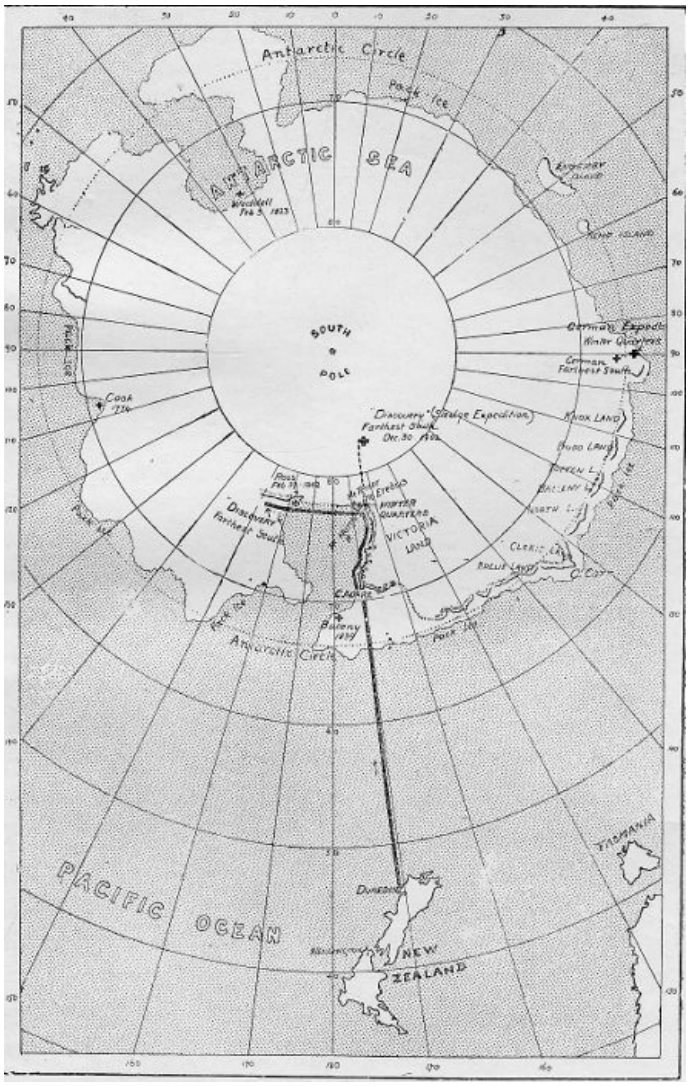
CHAPTER XVIII [Pg 339]
BRITAIN HOLDS HER OWN

A Capable Crew—A Modern Franklin—Early Discoveries—Frozen in—An Historic Journey—The Record of "Farthest South"—How the Record was Won—Speedy Travelling—Receding Ice Limits—A Dying Glacier—The Secret of the Barrier—A Fatal Gale—Lost in the Snow—An Antarctic Chute—Prolonged Slumber—Antarctic Coal—

Home with Honour.

The British Expedition, despatched under the international agreement, was destined, not only to surpass the achievements of the other two, but also to establish a series of records superior to anything that has yet been accomplished in Polar exploration, either in the northern or southern hemispheres.

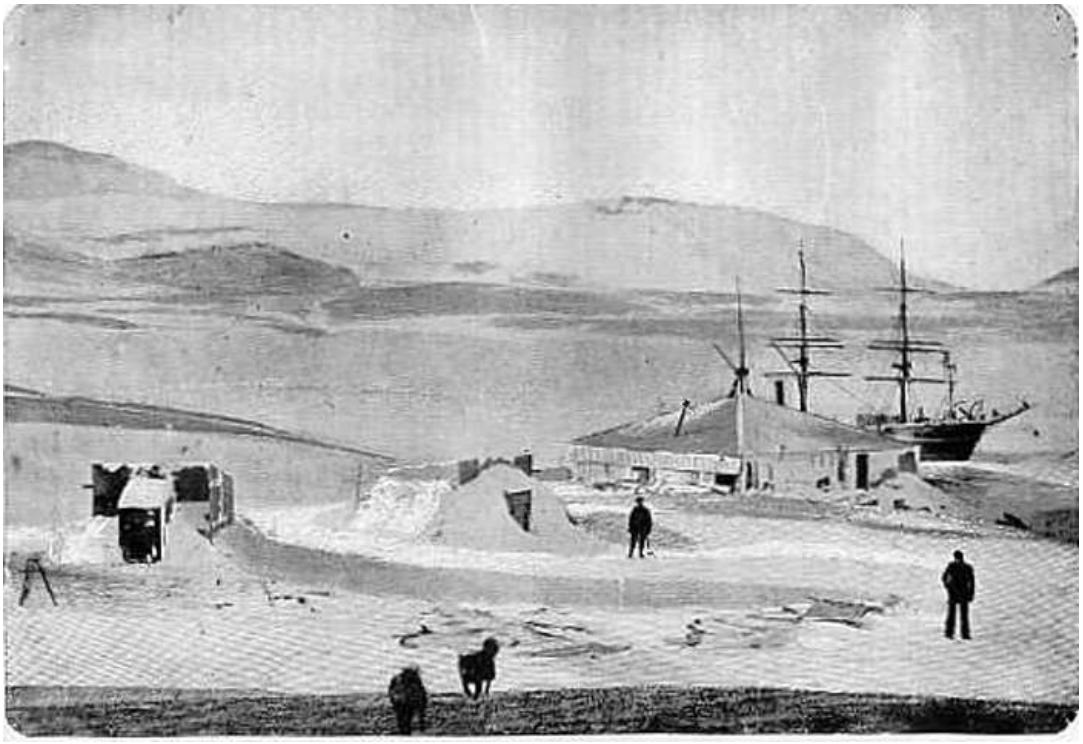
The members of the expedition, consisting of Naval officers and men, officers of the Mercantile Marine (Royal Naval Reserve), and civilian scientists, sailed from Cowes on August 6, 1901, on board the *Discovery*, a vessel specially built for the purpose. The ship proceeded to New Zealand, and left there on November 28, 1901, for Victoria Land. They arrived there December 24.



MAP OF SOUTH POLAR REGIONS.

The black line marks the voyage of the *Discovery*; the dotted line the course of the record-making Southern sledge journey. On the right of the map are seen the winter quarters of the German Expedition under Prof. von Drygalski.

In selecting the members of the expedition, great care had been exercised, and the excellent results of the voyage may, in a great measure, be attributed to this. No other qualification than fitness was allowed to rank with the selecting committee, so that every one on board the [Pg 340] *Discovery* knew what he had to do and was capable of doing it. This is particularly true in regard to the commander, Captain Robert F. Scott, R.N., of whom the President of the Royal Geographical Society justly said: "the skilful and bold navigator, the ideal director of a scientific staff, the organiser of measures securing the health and good spirits of his people, and the beloved commander of the chosen band of explorers who are ready to face hardships and dangers to secure his approval." Throughout the entire period the expedition was away, the attitude of the commander was entirely in keeping with the grandest traditions of the service to which he belonged, and would serve to place his name in the brilliant list of Polar heroes quite apart from the splendid feats he personally performed while in the Antarctic. Prominent amongst these stands the record of "farthest South," achieved by Scott and two comrades, in September 1902, when the flag was carried to 82° 17' S., or some 250 miles nearer the Pole than it had yet been.



THE *DISCOVERY* LYING IN WINTER QUARTERS, FROZEN IN.

The large hut could accommodate the whole crew, and was built in case of a disaster to the ship. The smaller huts in the foreground were used for magnetic and astronomical observations.

The first point touched by the *Discovery* on her voyage along the coast of Victoria Land was Cape Adare, where the Newnes expedition, under Borchegrevinck, passed the winter of 1899. Here a brief landing was effected, a collection made of the rocks in the neighbourhood, and a cairn built to hold a record for the information of the relief ship, which was to be sent out in the following [Pg 341] year. Continuing the voyage to the South, the explorers visited Wood Bay, and, subsequently, discovered an excellent harbour as far south as 76° 31' S.

Landing at Cape Crozier on January 22, and leaving another record there for the information of the relief ship, the *Discovery* went east along the ice barrier until the 165th meridian of longitude was passed, when the barrier was found to trend to the north, the sea becoming rapidly more shoal. The coast line was followed to 76° S., or 150 miles further than the expeditions before had gone. The ship was then turned, and, in 174° E. longitude, a place was seen where an inlet ran into the barrier. A sledge party went on the ice and penetrated as far as 78° 50' S., the point reached by Borchegrevinck in his sledge trip.

By this time it was realised that winter quarters must be selected, and the *Discovery* sailed to that part of the sea where Mount Erebus and Mount Terror reared their lofty heads on the land. Examining the land for a suitable site for the camp, it was learned that both Erebus and Terror are situated on an island, and not, as was formerly believed, on the mainland. At the opposite end of the island another smaller volcanic mount was seen, with a still smaller one between it and the two giants. The larger of these was named Mount Discovery, and, near its base, the site of the camp was chosen. The ship was worked in as close to the shore as was possible before the heavy [Pg 342] frost set in, and, as she was well constructed to withstand the pressure of ice, she remained in this position until, after the second winter had been passed, the relief ship arrived with sufficient explosives to blast a way out of the ice.

As soon as the members of the expedition had settled down and all was made snug, trips were taken in all directions along the coast and over the ice. The longest trip, taken in the following September, was arranged for, food depôts being established as far to the south as the stores could be conveyed.

On this trip, the historic one of the expedition, only three went. These were Captain Scott, Lieutenant Shackleton, and Dr. Wilson. They had dogs with them at the start, but the animals grew sick and weak, and were, at last, quite useless in dragging the sledges. The three harnessed themselves to the sledges in place of the dogs, and, handicapped with this weight of 240 lbs. each, they pushed on until they reached 82° 17' S. From the position they then occupied they were able to see as far as 83° 20' S., and would have gone as far, if not farther, but for an insuperable obstacle that confronted them. The route they followed was over rough ice, often yawning with deep crevasses, down which the sledges had to be lowered and then hauled up on the other side. Some of them were veritable chasms, but they faded into insignificance when [Pg 343] compared with the one which opened before the explorers at the end of the march. For a time they examined this mighty ice ravine to see if it were not possible, one way or another, to get across. The descent might have been possible, and there was no great difficulty in crossing the floor of it, but the far side rose in an unbroken precipice, and they recognised it as

insurmountable, even to such daring and intrepid climbers as themselves.

From the latitude they had attained they were able to learn that Victoria Land is traversed by a range of high mountains, which, in 82° S., were from 10,000 to 14,000 feet high. A line of foot-hills, closely resembling Admiralty Mountains in appearance, rose in longitude 160° E. The route gradually ascended, as the party progressed, until a level unbroken plain was reached, the altitude of which was 9000 feet. The coast line could be seen stretching away due south to the 83rd parallel.

On the way back Lieutenant Shackleton unfortunately ruptured a blood-vessel during an unusually heavy strain at the sledges. The strength of all the party was severely taxed by the hardships of the journey, and the sudden incapacitating of one of the three was a matter of grave anxiety. He was relieved of the weight of his sledge, but they all realised that if they were to get back alive to the ship, Lieutenant Shackleton would have to walk, as the other two were utterly unable to drag the sledges, with the food and supplies, and his weight as well. With heroic [Pg 344] determination he followed them on foot, only complaining that his injury effectively prevented him from doing his share in the hard work. So they journeyed, arriving at the ship after an absence of ninety-four days, during which they must have covered quite a thousand miles. The speed at which they travelled, when the ice conditions would allow them to proceed, was as high as thirty-two miles a day, a speed far greater than has been attained by other explorers, with one exception, even when the sledges have been drawn by dog-teams.

THE "FARTHEST SOUTH" SLEDGE PARTY IN A BLIZZARD.

Drawn by Stanley L. Wood.

The exception was the record set by another party of the *Discovery* explorers, who, without dogs, and with heavy sledges (240 lbs. a man), covered thirty-three miles a day over the inland ice. This party went out in a westerly direction and passed over the interior of Victoria Land, which they found covered with an ice-cap forming a great plain 9000 feet above the sea-level. They were fifty-three days absent, and, at their farthest, were 142 miles from the ship. When they turned back, the plain on the horizon seemed to be higher than where they stood, and rocks occasionally showed. Between this plain and the coast they had several magnificent views of glaciers. In following one down they had an interesting evidence of the fact that the ice in these regions is receding, though at a rate that will require many centuries to pass before it is all melted and the [Pg 345] land made available for human settlement.

They had followed down the glacier for a day, and the ice became so very rough they were obliged to leave their sledges behind them and proceed with the greatest care. As they continued to descend, the glacier gradually dwindled and then suddenly ended in a low wall of ice. In the valley beyond were some frozen lakes, beyond which the valley changed into a series of deep, narrow gorges, filled with long lines and confused heaps of stones and other débris, shed from the glacier as it melted. Perhaps in this valley, more than anywhere else, lay the evidences of what was happening and what had been. There lay the glacier, inert and dead, while the summer sun was gradually wasting its huge mass. On either side its shrinking tributaries had already severed their connection with it, and receded up the mountain sides. Everything pointed to receding glaciation. Not only were the gorges filled with the stones and débris of the moraines, but thousands of feet up the hill-sides they lay in clear-cut lines, showing how vast the proportions of the glacier had once been.

Other glaciers observed gave the same indications. One of these, named the Ferrar Glacier, after the discoverer, was described as containing probably as much ice as any hitherto known in the world. Two others, the Barnes and the Shackleton Glaciers, each contained a great deal more;

but all were greatly shrunk from the tremendous proportions they must once have had, and which could be traced by the lines of moraines. It was from observing these glaciers and speculating upon the immeasurable quantity of ice that once must have slowly flowed along them to the sea, that a theory was formed as to the real significance of the great ice barrier lying to the south of the Antarctic Circle. The opinion was generally entertained that the ice in this barrier is afloat. It had receded from the time when Ross first discovered it. Even while the expedition was in the neighbourhood it receded. In September 1902, a depôt was established on the ice at a line drawn between a volcanic peak at the extreme end of Minna Bluff and the top of Mount Discovery. In November 1903, this spot was found to have moved 608 yards out of the alignment, moving east of north. On the sides of Mount Terror, 800 feet above the existing surface of the barrier, moraines marked its original height. From these facts it was reasoned that at one time the ice forming the cap over the Antarctic continent was enormously deeper than it is to-day, and that it then extended out into the Antarctic Ocean for probably hundreds of miles further than it now reaches. The slow but steady flow of the great ice stream had absolutely filled the sea off the coast of Victoria Land, and the barrier, now existing, was the remains of this once mighty mass. [Pg 346]

It was on one of these exploring journeys that a curious experience befell one party, a member of which, unfortunately, lost his life in consequence. The party were out with sledges and had halted for the midday meal when a violent gale sprang up. As usual, the wind set the snow in motion, and soon the men found themselves in a whirling cloud of finely powdered snow which entirely shut out their view in all directions. Believing themselves to be in the vicinity of the ship, they left the sledges and set out to march to the vessel. Soon they found themselves on a slope which they fancied they recognised as the one that led down to where the ship lay in the ice. As they cautiously advanced, one of the men missed his footing. What with the force of the wind, the insecure foothold on the moving snow, and the declivity of the slope, he was unable to stop himself, and slipped past his comrades and out of sight in the whirling snow with the speed of lightning. [Pg 347]

The officer in charge halted the other men, and all crouched down, expecting their comrade to rejoin them as soon as he secured his footing. After waiting some time without his appearing, the officer advanced to find him. With the first step he also went out of sight as though he had been shot from a gun. Then a third went forward, and was at once lost to the sight of the others in the same way. The remainder of the men, after waiting for some time, concluded the three had reached the ship, and determined to set out after them. One man, a young New Zealander named Hare, set off to reach the sledges and recover his mittens. In the confusion of the whirling snow his absence was not noted, and the rest of the party set out for the ship, which they were satisfied was quite near. As a matter of fact, they were entirely out of their bearings. The man who took the lead walked very cautiously down the slope. He had heavy tacks in the boots he was wearing, and was thus enabled to get a firm hold of the snow. To this he owed his life, for, through the drifting snow, he suddenly saw an open chasm yawn at his feet. He threw himself back and shouted to those behind to stop. All tried to do so, but the man next to the leader was unable to pull up. His feet shot from under him, and he was seen to dash past them like a flash. [Pg 348]

Out of the nine who had originally formed the party, four now remained together. Warned by the sudden disappearance of the man Vince, who had shot past them over the precipice, the four moved with the greatest deliberation and caution. At length they were able to reach the shore and locate the ship, whither they hastened with the news.

A DRIFTING ICE FLOE ATTACHED TO THE *DISCOVERY* BY A ROPE, WHILE THE CREW ARE DIGGING SUFFICIENT ICE TO REPLENISH THE FRESH WATER SUPPLY OF THE SHIP.

The alarm was at once given, steam was got up, the siren was set to work, and its shrill notes penetrated far and wide, while relief parties were organised and despatched. Knowing the route the men were to have taken, no difficulty was experienced in tracking down the abandoned [Pg 349] sledges. But on arrival there the relief party was astounded to find the officer and the two men who had vanished from the others while descending the snow slope. The astonishment was increased when not one of the three could explain how they had succeeded in returning to the sledges. They remembered their experiences as they were hurled down the snow slope, and each one told the same tale. Immediately they had stood up against the gale they felt their feet go from under them, they rushed forward with incredible speed, so fast, indeed, as to have absolutely no control over themselves, and then they plunged into a mass of soft snow. There they found themselves and one another. They were still dazed when found. Subsequent examination showed that the slope down which they had been hurled extended for a distance of five hundred yards and terminated with the bank of snow, into which they had plunged. The bank was within fifteen feet of a cliff which had a clear drop of two hundred feet to the shore-ice below.

It was over this cliff that Vince had gone, and no trace of the unfortunate fellow was ever found. Nor were the relief parties successful in discovering Hare, the New Zealander. When all had returned to the ship he was also given up as lost, but to the amazement of every one he was seen returning to the ship on the second day after the gale. He explained that on his way back to the [Pg 350] sledges he had fallen in the snow and had lost consciousness, returning to his senses some time after to find himself completely buried in a snow-drift. He had struggled out and made his way to the ship. It was his turn to be amazed when he was told he had been searched for during the whole of the previous day. It was some time before he would believe that what he referred to as to-day was in reality yesterday. He had lain in the snow for a period of thirty-six hours. When he fell, the heavy snow had apparently covered him, and so kept the heat of his body from leaving him. He had thus sunk into a heavy snow-sleep, and his physical stamina had done the rest in helping him towards recovery. His escape, without even a frost-bite, is unique in the annals of Polar experiences.

During the second year of their stay, a discovery was made, which, from a geological point of view, exceeded in value all the others put together. It was in October that a sledge party set out to penetrate into the interior of Victoria Land. They travelled over the ice plain at an average altitude of 9000 feet until, in 78° S. and 146° 30' E., they were at a distance of 270 miles from the ship. The interior of the land seemed to stretch in a vast continental plateau continuously at a height of 9000 feet. In one of the many ravines examined, sandstone strata were discovered, in one of which there was a narrow seam of fossil plants. The "coal measure" was only one-eighth of [Pg 351] an inch in thickness, but within it were found specimens of plants belonging to the Miocene period.

In February 1904 the relief ship *Morning* arrived at the station, and, with the explosives she brought with her, the *Discovery* was freed from the ice and commenced her homeward journey. She had completed a stay of two winters in a latitude 500 miles further South than any other ship had wintered, while the expedition had reaped a success such as no other expedition has ever achieved in either Arctic or Antarctic regions.

THE END

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