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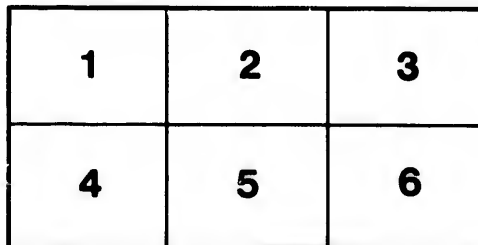
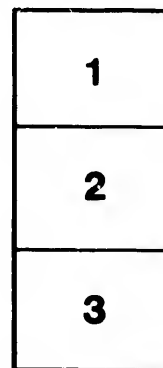
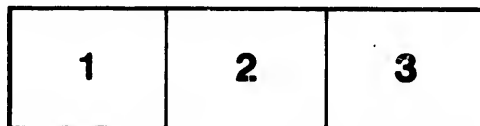
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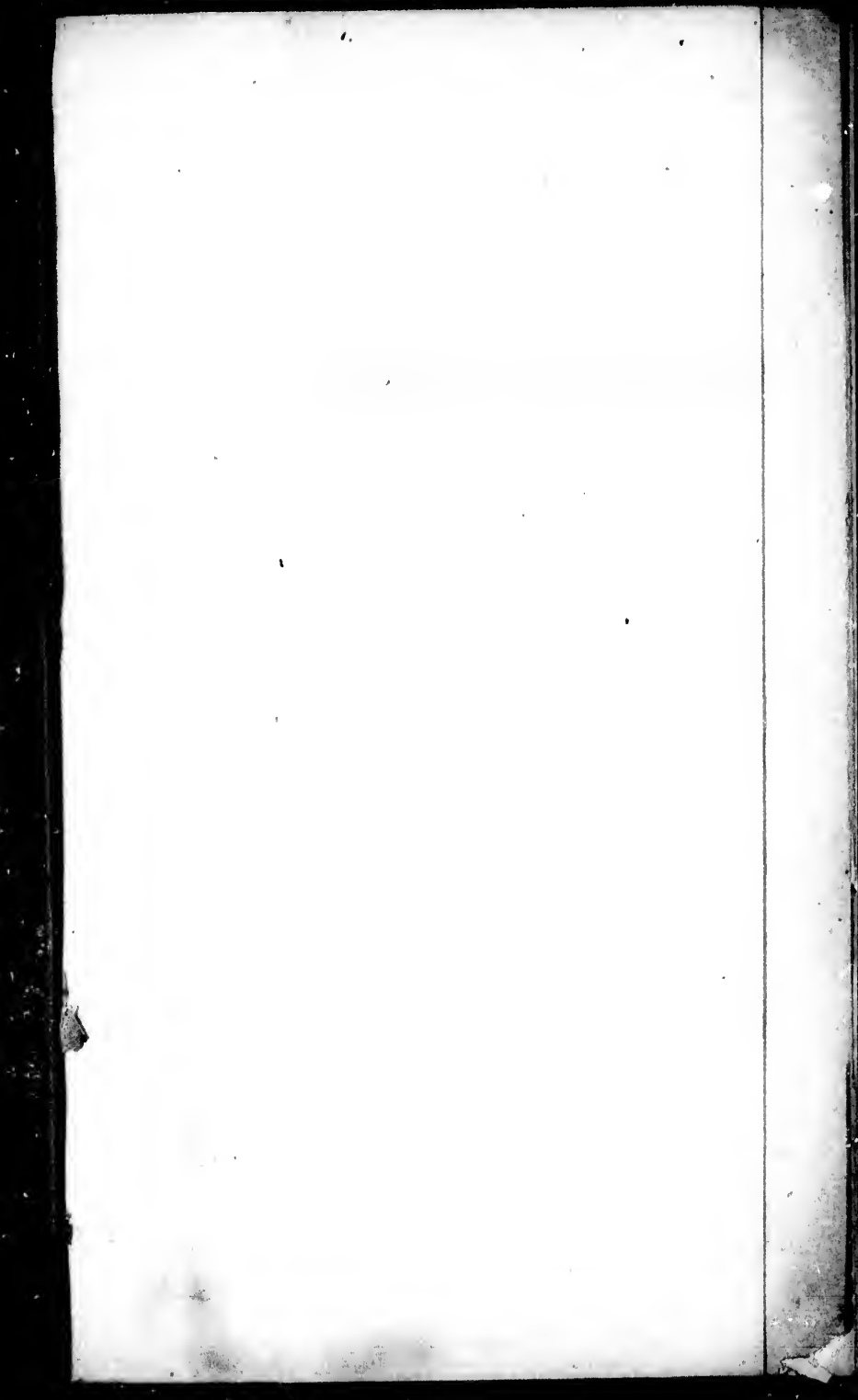
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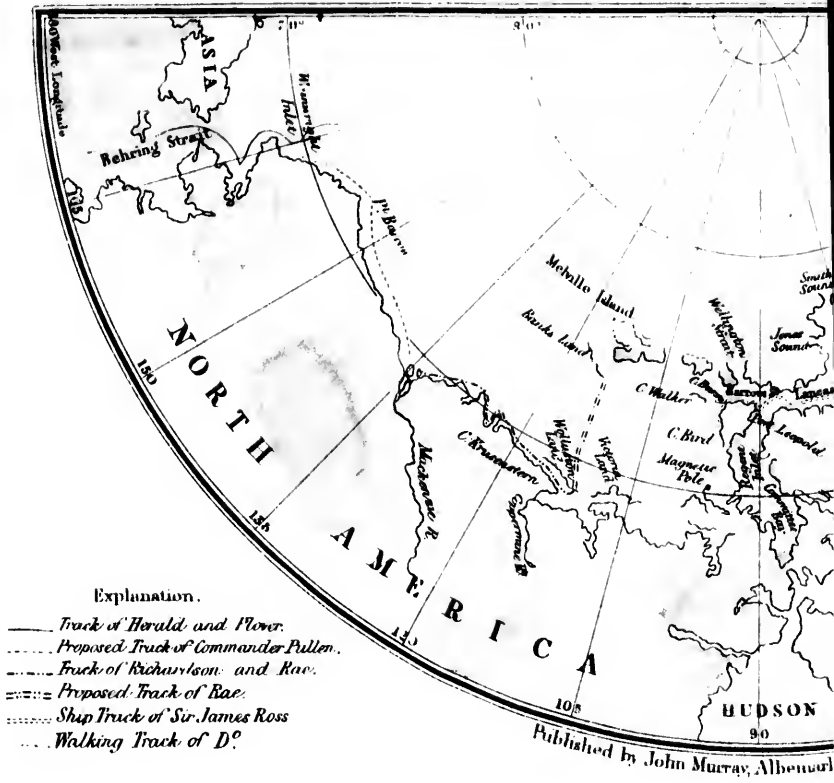
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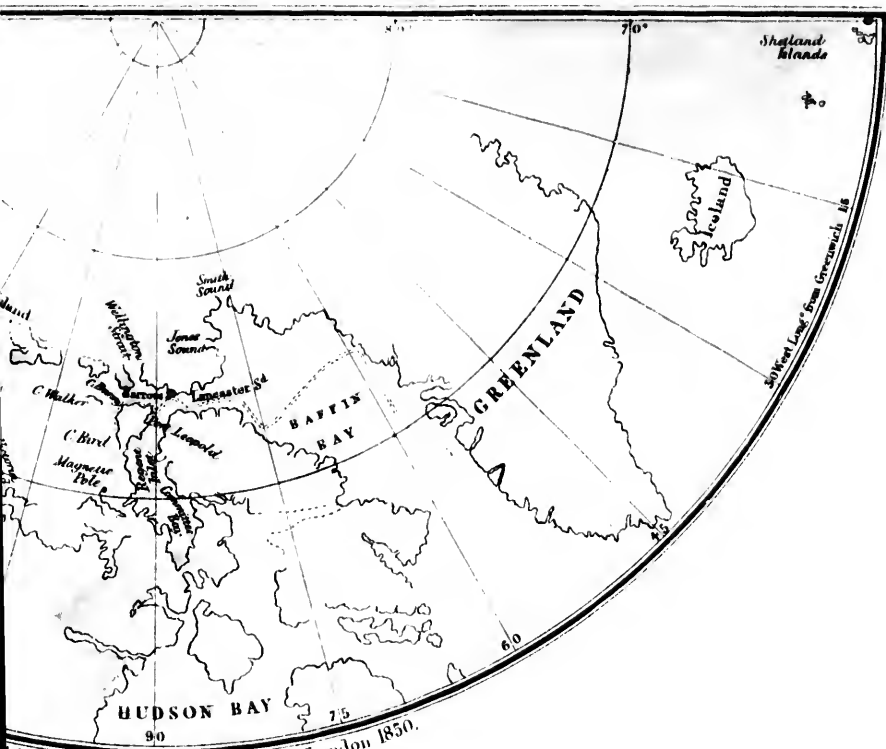
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OUTLINE MAP OF THE ARCTIC REGIONS SHewing TRACKS OF THE LA



TRACKS OF THE LATE EXPEDITIONS IN SEARCH OF SIR JOHN FRANKLIN.



OUTLINE MAP OF THE ARCTIC R



Explanation.

- Track of Herald and Flower.
- Proposed Track of Commander Pullen.
- Track of Richardson and Rae.
- ==== Proposed Track of Rae.
- Ship Track of Sir James Ross.
- Walking Track of D°.

ARCTIC EXPEDITIONS:

A LECTURE

DELIVERED AT THE LONDON INSTITUTION,
FEBRUARY 6, 1850.

BY CHARLES RICHARD WELD,
ASSISTANT SECRETARY TO THE ROYAL SOCIETY.

With a Map.

LONDON:
JOHN MURRAY, ALBEMARLE STREET.
1850.

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ARCTIC EXPEDITIONS;

A LECTURE.

THERE is probably no portion of the history of this country which so forcibly illustrates the calm and enduring heroism of our countrymen, as that relating to the voyages of discovery in the Arctic seas.

It is impossible to contemplate the terrible catalogue of suffering which the history of those voyages presents, without feelings of the highest admiration.

The actors in those scenes were worthy descendants of those daring Northmen who went forth in frail barks over their stormy waters, and discovered the shores of Arctic America, five centuries before Columbus sailed across the Atlantic to that mighty continent.

But the spirit of northern maritime enterprise arose in other lands before it became active in our own.

We have indisputable evidence that Greenland was discovered by Erick Rauda, or the Red, a bold Scandinavian, in 1001. The original records of this discovery state that he called the land Greenland to induce the Norwegians to settle there, which they did; and it is from the voyages of the Venetians, Nicolo and Antonio Zeno, in 1380, that we first learn

tidings of the colony. They found it thriving, and mention particularly a monastery, the church and apartments of which were heated by warm water ejected from boiling springs in the vicinity.

The voyages of the Zenos throw considerable light on the state of Greenland and Labrador at that early period. They were succeeded by several bold expeditions, sent out by the Portuguese, which led to the discovery of Newfoundland, called by them *Terra de Bacalhaos*, or Land of Codfish, and other contiguous parts of the North American Continent. Among these enterprising navigators, Gaspar Corteereal deserves particular mention; for after a voyage to the north, during which he discovered the Gulf of St. Lawrence, he became so fully convinced of the existence of a north-west passage to India, that he left Lisbon, in 1501, for the purpose of discovering it, but perished a victim to his daring, his ships having foundered in the northern seas.

Although this expedition terminated so fatally, the idea of a north-western passage to India and Cathay quickly gained ground. To attain these distant lands of "pearls and gold" by a less toilsome and tedious voyage than that round the Cape of Storms, was a favourite day-dream in the sixteenth century; and the Spaniards, whose flag had been carried across the Atlantic, made several attempts to reach the Indies by the north.

Estevan Gomez, who had been with Magalhaens, sailed from Corunna, in 1524, with that object; but he did not get beyond Labrador. Unwilling that his voyage should be entirely fruitless, he carried off

some natives, whom he regarded in the light of slaves. This led to a curious mistake, illustrative of the confidence that was entertained in the existence of a north-west passage. On his return to Spain, being asked what success he had met with, he answered, "*esclavos*," slaves, which the inquirer mistook for "*clavos*," cloves, and posted off to the court with the news that Gomez had made what Purchas calls "a spicy discovery."

In the latter part of the fifteenth century, England first evinced an ardour for northern voyages. Henry VII. had encouraged John Cabot, a Venetian, to make discoveries, by granting him a patent to search for unknown lands; but so firmly was he impressed with the belief that by sailing north-west he would, to use his own words, "come by a shorter track into India;" that, instead of seeking for lands in southern seas, he caused, as he says, "the king to be advertised of his device; who immediately commanded two caravels to be furnished with all things appertaining to the voyage." Cabot reached the fifty-sixth degree of north latitude; but, finding no opening in the coast, he despaired of a passage, and returned.

This failure, however discouraging, did not extinguish the desire for discovery. In 1527 Robert Thorne sailed from the Thames with "two faire ships and divers cunning men to seek strange northern regions." All that Hakluyt, to whom we are indebted for the most complete account of early voyages, could ascertain respecting these ships and the cunning men was, that the name of one of them was *Dominus Vobiscum*; and that a canon of St.

Paul's, of London, a great mathematician, "did much advance the action by going himself."

This expedition was followed by one undertaken by a certain Master Hore, of London, whom Hakluyt calls a "man of goodly stature and of great courage, and given to the study of cosmographie." Hore's scheme was to penetrate to the unknown regions of the northern seas. He was so much liked that he enlisted under his flag 120 persons, of whom 30 were lawyers and country gentlemen. They embarked in the ships *Trinitie* and *Minion* from Gravesend, in April, 1536, after solemnly receiving the sacrament. The fate of this expedition was very disastrous. The ships did not get beyond Newfoundland, when the party suffered such fearful distress for want of provisions that one man killed his comrade and greedily devoured a portion of his flesh. One of the ships was afterwards lost between the northern parts of Newfoundland and Greenland.

The next expedition was that sent out at the suggestion of Sebastian Cabot, who had been appointed Grand Pilot of England, for the purpose of discovering a north-east passage to Cathay and India. The expedition consisted of three ships, the crews of which, including eleven merchants, numbered 113 persons.

The command was given to Sir Hugh Willoughby, "both," as Hakluyt tells us, "by reason of his goodly personage, as also for his singular skill in the services of warre."

The expedition sailed from the Thames on the 20th May, 1553. On passing Greenwich, where the

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Court then resided, the gallant adventurers received the salutations and good wishes of the council and courtiers. Everything boded success; but the history of the voyage is pregnant with terrible events. Sir Hugh Willoughby with his brave associates, as also the crew of the second ship, were frozen to death on the coast of Lapland. The crew of the third ship, which had parted company by putting into Wardhuys, in Norway, escaped the fate of their companions; and in the following year discovered the port of Archangel, and opened the first intercourse with Russia. Thus, this expedition, although most unfortunate, was of considerable service to maritime geography and commerce.

The three expeditions of Frobisher are remarkable, as they had the two-fold object of discovering the north-west passage and prosecuting the search for gold, which was supposed to exist in Labrador.

They were sent out at the expense of the "Company Adventurers of Cathay," among whom Queen Elizabeth appears as a subscriber to the amount of 4000*l*.

The first expedition sailed in 1576, and entered the strait which now bears Frobisher's name.

He held some communication with the natives, and carried one of them to England, who died soon after his arrival in this country. He is described as "the strange man of Cathay, whose like was never seen, read, nor heard of before."

Among the payments in the accounts relating to this voyage are the items of 5*l*. to Mr. Crowe, the surgeon, for "opening of the Indian man and balm-

ying him, and 5*l.* to Cornelius Kettall, paynter, Dutchman, for making a great picture of the whole body of the strange man in his garments, which sayd picture was given to the Queen's Majesty."

This and the two succeeding expeditions, caused Frobisher to be specially commended for the great hope he brought of the passage to Cathay.

My limited time will not permit me even to sketch the succeeding voyages which were undertaken by various parties, at very brief intervals, for the purpose of discovering a passage to the Indian seas.

Those of Sir Humphry Gilbert, of Davis, Baffin, and Hudson, which are among the most important, are well known, and although failing in their object, they greatly extended our geographical knowledge of Arctic America; and Davis, by the discovery of the strait that bears his name, opened the way to the whale fishery which is still carried on in that sea.

In the latter end of the eighteenth century, the Royal Society turned their attention to Arctic discoveries. At their suggestion two ships were sent out for the purpose of ascertaining how far navigation could be carried on in the direction of the North Pole.

The expedition left the Nore on the 10th June, 1773, passed along the western coast of Spitzbergen, and attained a latitude of 80° 48' where the ships were beset by ice and obliged to return home.

The land journeys of Hearne and Mackenzie, which led to the discovery of the Coppermine and Mackenzie rivers, tended to keep alive the interest in the

subject of the north-west passage. Those enterprising explorers ascertained that an open sea extended beyond the icy archipelago at the mouth of those rivers, and they were of opinion that a navigable ocean bounded the entire coast of North America. Subsequent explorations by Franklin, Richardson, Simpson, and others, show this opinion to have been well founded.

An act of parliament was now passed, granting a reward of 20,000*l.* for the discovery of any northern passage by sea between the Atlantic and Pacific oceans, and 5000*l.* to any ship attaining the meridian of 110° W. long., and in 1776, an expedition was fitted out under the command of Captain Cook, for the purpose of essaying the passage on the side of Behring Straits. England had the misfortune to lose Cook on this expedition; the command devolved on Captain Clerke, who died in sight of the entrance to the harbour of St. Peter and St. Paul in Kamtschatka, and after an absence of three years, during which the ships did not reach a higher latitude than 70° 45', they returned to England, the survivors being, as they said, "heartily sick of a navigation full of dangers."

This failure appears to have had the effect of deterring Government from making any further attempts at that period for the solution of the great nautical problem, for, with the exception of some unimportant expeditions which emanated from the Hudson's Bay Company, nothing was done by the Admiralty for nearly half a century.

And it is doubtful whether the subject would have engaged attention at the expiration of this period,

had it not been for a remarkable change in the state of the Arctic seas.

In the year 1817 intelligence reached England that the vast fields of ice which had barred up the eastern coast of Greenland for four centuries had given way, and that stupendous icebergs had been fallen in with by ships, in different parts of the Atlantic, even as far down as the fortieth parallel of latitude.

Among the communications on this subject, perhaps the most valuable was that addressed by Captain, now the Rev. Dr. Scoresby, to Sir Joseph Banks, in October, 1817, in which, alluding to the disappearance of ice in high latitudes, he suggests the propriety of renewing the search for the north-west passage.

As soon as these facts became generally known, a feeling prevailed that, as the Arctic seas were now, in all probability, much more open than formerly, it was desirable to take advantage of this circumstance, and again send discovery ships into those regions.

The re-organization of the Arctic expeditions was also in a great measure due to the late Sir John Barrow, who had been appointed secretary to the Admiralty.

That gentleman had an ardent desire to see the problem of the north-west passage solved by the skill and enterprise of British seamen; and during the course of a long and useful official life, he gave the subject his earnest attention and consideration.

He was fortunate in finding an able and willing coadjutor in his friend Sir Joseph Banks, to whom he communicated his thoughts on the subject.

Sir Joseph was then at the head of the Royal Society, and Sir John Barrow says that, before submitting any proposal for Arctic exploration to the Admiralty, by whom he knew it would be referred to the council of the Royal Society, he deemed it right to take the President's opinion as to the effect of the changes reported to have occurred in the northern regions, and the desirableness of sending out an expedition for the discovery of a north-west passage. Sir Joseph, we are told, entirely approved the renewal of attempts to accomplish a grand object which, for three centuries, had at different times occupied the attention of our sovereigns, philosophers, men of science, and merchants, and he promised to give the matter his most cordial support.

Two expeditions were equipped, one to proceed by the North Pole to Behring Straits, the other to attempt a passage by some of the openings leading out of Baffin's Bay, none of which, it will be remembered, had ever been explored. To each expedition were assigned two ships. Those destined for the Polar passage were placed under the command of Captain Buchan, and Lieutenant, now Sir John Franklin; and those for the north-west were commanded by Captain John Ross and the present Sir Edward Parry.

The ships sailed in the early part of 1818. The Polar Expedition attained a latitude of $80^{\circ} 34' N.$, when Captain Buchan's ship becoming disabled, by severe pressure from the ice, further progress on her part became impossible.

But, although dangers of the most appalling nature

were around, Lieutenant Franklin, whose ship was less damaged than that of Captain Buchan, earnestly requested that he might be allowed to proceed alone in the execution of the service. The nature of the instructions prevented this, and the expedition returned.

The other, under the command of Capt. John Ross, though favoured by remarkably open seas, was as unproductive of important results; for, when the ships were sailing up Lancaster Sound, at the latter end of August, with clear water around, and when "every person on board, on the instant, as it were, made up his mind that this must be the north-west passage," by some unfortunate misapprehension, arising, probably, from meteorological causes, it was supposed that a lofty ridge of mountains stretched across the inlet, and after exploring the channel to the distance of thirty miles, the ships steered out of it and returned to England.

The results of this expedition were so inconclusive, that another was despatched in 1819, under the command of Lieutenant Parry, who was especially charged to examine Lancaster Sound.

The expedition consisted of the *Hecla*, of 375 tons, and the *Griper*, a gun brig.

The ships sailed from the Thames on the 11th of May, and on the 30th of July had succeeded in reaching the opening of Lancaster Sound, just one month earlier than in the preceding year.

A strong easterly breeze carried the ships rapidly to the westward, and the mountains which were supposed to bar the inlet were found to have only an

imaginary existence. A fine expanse of open sea lay before them. Lieutenant Parry observes :—

“ It is more easy to imagine than to describe the almost breathless anxiety which was now visible in every countenance while, as the breeze increased to a fresh gale, we ran quickly up the sound. The mast-heads were crowded by the officers and men during the whole afternoon; and an unconcerned observer, if any could have been unconcerned on such an occasion, would have been amused by the eagerness with which the various reports from the crew's nest were received, all, however, hitherto favourable to our most sanguine hopes.”

Sailing on to the westward through Barrow Straits, he came to the mouth of an inlet ten leagues wide, which he explored to the distance of 120 miles, and to which he gave the name of Prince Regent; and returning to Barrow Straits he continued his westerly course, passing several bays and headlands on the northern shore, until he arrived at the mouth of a channel in which neither land nor ice could be seen from the mast-head. To this he gave the name of Wellington.

As the season advanced, his progress westward became more difficult, on account of the frequent occurrence of patches of ice; however, he still held on, and had the great satisfaction of crossing the meridian of 110° W. from Greenwich on the 4th September, by which the expedition became entitled to the reward of 5000*l.*, promised by parliament to the first ship which should succeed in penetrating so far to the westward.

They were now evidently navigating through an archipelago of islands, to the largest of which Lieut. Parry gave the name of Melville, and to the entire group that of North Georgian. They are now called the Parry Group.

The expedition proceeded to the western extremity of Melville Island, where they struggled in vain until the 20th of September to get further to the west, when the severity of the weather made it prudent to look out for a secure spot to pass the winter; and after cutting a canal through the ice, 4082 yards in length, the ships were hauled into winter harbour, on the south side of Melville Island, on the 26th of September.

Here they remained through a long and dreary winter, which lasted for ten months, during three of which the sun was not seen at all. Admirable arrangements were made for employing the crews, and relieving the monotony of this long frosty night. Theatrical performances * were carried on, and a weekly journal established, called the *North Georgian Gazette, or Winter Chronicle*. It was edited by the present Colonel Sabine, who accompanied the expedition in the capacity of Astronomer, and it had a happy influence on the minds of the ice-bound adventurers.

Some of the *jeux d'esprit* are very humorous. Here is an advertisement:—

* The idea of providing amusement for ships' crews by theatrical entertainments is very ancient. In the log of a voyage to the East Indies, in 1697, it is recorded that Shakespear's tragedies were occasionally acted, "to keep the people from idleness and unlawful games."

"For Sale by Auction,

By NICHOLAS KNOCKDOWN, at the Observatory,
On the coldest day in January next,

A quantity of Nankeen, the property of a gentleman who expected to get into the Pacific in September last. Flannels and Furs will be gladly taken as part payment."

And under the head of "Fashionable Intelligence," we read:—

"The Earl and Countess of Musk Ox, Lord and Lady Deer, with their families, are shortly expected from the Continent. We also hear that several other persons of distinction are to arrive early in the spring. Among these are the gallant admiral Lord Glaucus, Colonel Swan, Major Goose, and their amiable ladies, who start immediately for the lakes; and Sir Eider and Lady Duck, whose *accouchement* is expected to take place shortly. The Archduke Bruin is recovering from his late attack of somnolency and will soon be able to venture out."

The narrative of Lieutenant Parry, relating to the wintering of the expedition at Melville Island possesses peculiar interest at the present moment, bearing in mind the probability that our missing countrymen have been obliged to spend one or more winters in that remote region. During their stay of nearly twelve months the island afforded them the following quantity of game:—3 musk oxen, 24 deer, 68 hares, 53 geese, 59 ducks, and 144 ptarmigans; amount-

ing in weight to 3766lbs. of meat, or three pounds and a-half per month to each man.

It will be borne in mind that the expedition was independent of the supply of game for subsistence, and that hunting parties were only occasionally sent out. It is probable that in the spring large numbers of deer arrive at Melville Island from the south. Parry saw the remains of huts there, which he conceives to have been erected by parties of hunting Esquimaux, who had followed the deer and oxen from Banks' Land.

The existence of coal at Melville Island is another important circumstance in connection with the resources of that region.

Thermometrical observations show the maximum temperature of the air to have been 60° , the minimum 50° below zero, and the mean of the twelve months $1^{\circ} 33'$. The ice in the coldest period was found to have attained a thickness of eight feet.

It was not until the 1st of August, 1820, that the ships were enabled to leave their winter quarters, but this date is earlier by 27 days than the period of Sir James Ross' liberation from Leopold Harbour, during his late expedition.

Lieutenant Parry now resumed his exploration to the westward, but on arriving a little beyond the meridian where the ships had been arrested the former year, they were checked by a barrier of ice, extending before them, even more compact and impassable than they had previously witnessed.

They had now to the north-east, Melville Island, and to the south-west, a bold coast which was called

Banks' Land; and as the ships were in constant danger of being nipped by the ice, Lieutenant Parry deemed it desirable to return to England, which he did in safety, after an absence of eighteen months, bringing back every officer and man (with only one exception, out of 94 persons,) in as robust health as when they left their country.

I have dwelt on this expedition at some length, because, as you will observe, it made us acquainted with a vast extent of Arctic sea, and developed a north-west passage, extending half the distance between the entrance to Lancaster Sound and Behring Straits.

Whether the rest of the passage can be effected on the parallel between Melville Island and Banks' Land remains uncertain; for, until the expedition now under the command of Sir John Franklin was organized, not one of those which succeeded that of Parry, having for their object Arctic researches, and the discovery of the north-west passage, was directed to the openings near Melville Island.

The limits of this lecture preclude my doing more than alluding to these expeditions. They are twelve in number, four were performed by land, and were headed by Franklin, Back, Simpson, Dease, and Rae; and the others were undertaken in ships commanded by Parry, Clavering, Back, Lyon, Beechey, and John Ross.

The time had long past when such expeditions were expected to develop commercial advantage. This, as we have seen, nerved our early voyagers to deeds of daring in the Arctic seas; but the nobler motives of science actuated their successors, and the

result of these expeditions was the acquisition of considerable scientific knowledge, particularly in the branch of magnetism, including the discovery of the magnetic pole, which immortalizes the name of James Ross, and extensive and complete information respecting the configuration of the north coast of America, and a portion of the lands and seas between it and Barrow Straits, and Lancaster Sound; but the grand desideratum of the north-west passage still remained in obscurity.

Such was the state of the question when, in December, 1844, Sir John Barrow, unwilling to close his long official career without one more endeavour towards the solution of the problem, submitted a proposition to the Admiralty and the Council of the Royal Society, which possesses so much interest at the present time that, being favoured with a copy of it, I feel much pleasure in laying it before you.—

“PROPOSAL FOR AN ATTEMPT TO COMPLETE THE
DISCOVERY OF A NORTH-WEST PASSAGE.

“There is a feeling generally entertained in the several scientific societies, and individuals attached to scientific pursuits, and also among officers of the navy, that the discovery, or rather the completion of the discovery, of a passage from the Atlantic to the Pacific, round the northern coast of North America, ought not to be abandoned, after so much has been done, and so little now remains to be done; and that with our present knowledge no reasonable doubt can be entertained that the accomplishment of so desirable an object is practicable.

"The case stands thus: since Captain (now Sir Edward) Parry on his first voyage passed Lancaster Sound, and proceeded without interruption to Melville Island, the same sound has been repeatedly passed by himself, by Ross, and several whalers, and may therefore be considered passable in all years; and this sound is one of the open gates of the passage to Behring Straits, which is the other gate, and has also been passed to a certain extent along the coast of America. There remains therefore to be navigated, on the Polar Sea, the distance between the meridian of Melville Island and that of Behring Straits, which is about 300 leagues; and there are strong grounds for believing that, although Parry saw from Melville Island something that looked like the looming of land to the southward, which is marked on the Polar Chart as Banks' Land, yet even were it so, it would not in any way interfere with the direct track between Cape Walker (the last land on the south of Barrow Straits which leads to Melville Island); and the ground on which it is assumed that in this track no land intervenes, is, that the whole north coast of America has been traversed by various persons by land, and in boats by water—Franklin, Back, Richardson, and Simpson—and nothing like land could be discovered from the high coast between the meridians of Cape Walker and Behring Straits, and little or no ice was observable, which is also the case on the coast of Siberia, as proved by Baron Wrangel.

"It may be presumed, therefore, that a distance of 300 leagues on a clear sea, keeping midway between the supposed Banks' Land and the coast of America,

would accomplish an object which, at intervals during 300 years, has engaged the attention of crowned heads, men of science, and mercantile bodies, whose expectations were frequently disappointed, but not discouraged.

“The Utilitarians were at all times ready enough to ask *cui bono?* but Elizabeth and her ministers, with their enlightened minds, sought for ‘knowledge,’ the result of which they needed not to be told was ‘power.’ Observe what followed; the knowledge gained by the Arctic voyagers was not thrown away. Sir Humphry Gilbert, by his grant of the Island of Newfoundland, made his voyage thither, in which he nobly perished, but his knowledge did not perish with him; on the contrary, it laid the foundation of the valuable cod fishery, which still exists. Davis, by the discovery of the strait that bears his name, opened the way to the whale fishery, still carried on; and Frobisher pointed out the strait which conducted Hudson to the bay that bears his name, and which gave rise to the establishment of a company of merchants under the name of the Hudson’s Bay Company, whose concerns are of that extensive nature as to be carried on across the whole Continent of America and to the very shores of the Polar Sea.

“Lastly, the discovery of Baffin, which pointed out, among others, the great opening of Lancaster Sound on the eastern coast of that bay which bears his name, has in our time been found to lead into the Polar Sea, through which the North-West Passage from the Atlantic to the Pacific will one day be accomplished, and for the execution of which we are

now contending; and which, if left to be performed by some other power, England, by her neglect of it, after having opened the east and west doors, would be laughed at by all the world for having hesitated to pass the thresholds.

"It should not be overlooked that there are in the Pacific at this moment two fleets of the only two naval powers likely to undertake the enterprise in question; and it is extremely probable some of their ships will make trial of this nearest passage home when they leave the Pacific station.

"If expense be the only objection, it may be met by observing that one season only would suffice for its decision, and the cost not more than one-third of that of the late Antarctic Expedition under Sir James Ross, while one of the objects would be precisely the same as that of the other, namely, observations on terrestrial magnetism—considered of such importance, that magnetic observatories have been established, through the influence of England, in almost every part of the globe.

"Lieut.-Colonel Sabine, who has been named by the President and Council of the Royal Society for the reduction of all these observations, has stated that magnetic observations made in this part of the Arctic regions would be most desirable; and he further observes, that he has no hesitation in saying 'that a final attempt to make a North-West Passage would render the most important service that now remains to be performed towards the completion of the magnetic survey of the globe;' and it is hardly necessary

to say that the geography and hydrography of this part of the Polar Sea would be a valuable addition to our knowledge of the globe, and well deserving the attention of a power like England.

"There can be no objection with regard to any apprehension of the loss of ships or men. The two ships that recently were employed among the ice of the Antarctic Sea after three voyages returned to England in such good order as to be ready to be made available for employment on the proposed north-west expedition; and with regard to the crews, it is remarkable that neither sickness nor death occurred in most of the voyages made into the Arctic regions, north or south.

"The two ships, the *Erebus* and *Terror*, are completely fitted for a sea of ice, and are in a condition to be employed on a similar service without creating any delay.

"It may also be observed that there is no want of officers who are well accustomed to an icy sea, ready and willing to embark on an expedition for completing the North-West Passage.

"JOHN BARROW."

The President of the Royal Society lost no time in acquainting the Admiralty that the society were disposed to entertain Sir John Barrow's proposition favourably; but Lord Haddington desired further information on the subject, as will be seen by the following letter, which he addressed to Lord Northampton:—

" Admiralty, December 26, 1844.

" MY DEAR LORD,

" After due consideration of your letter, informing me of the wish of the Royal Society that another expedition should be sent to the Polar regions, I find, that however glad I should have been at once to forward their views, I must in the first instance be possessed of such information as would justify me in preparing to fit out vessels at this moment (when we are under the necessity of keeping up so large a peace establishment) for any purpose, however interesting and important, that is unconnected with the ordinary service, and the execution of which might, perhaps, without inconvenience, be deferred.

" I have the means, by communicating with the officers employed on the former expeditions, of acquiring much of the information I seek to obtain.

" What I have to request of your Lordship is to move the Council of the Society to favour me with a report, which need not be a long one, of the advantages to be derived to science by this expedition. I am now in possession only of their resolution on the subject. I wish to be enabled to explain more fully than I can now do the views of the council on this very important matter.

" As soon as I have gained the requisite information, your Lordship shall hear from me again.

" I have the honour to be,

" My dear Lord,

" Your most faithful Servant,

" HADDINGTON."

" THE MARQUIS OF NORTHAMPTON,

" President of the Royal Society."

The Council again took the matter into their consideration, and the result was, that they gave their cordial support to the proposed expedition, not only as likely to increase geographical knowledge, but as tending to advance the science of terrestrial magnetism, which they have for many years been most zealous to promote.

Accordingly it became known, in the early part of 1845, that the intrepid, and I may add veteran, Sir John Franklin, who had but recently returned from an arduous and anxious service at the Antipodes as Governor of Van Diemen's Land, had been appointed by the Admiralty to command an Arctic expedition; and, as it is always interesting to know something of the personal history of those appointed to conduct great undertakings, I may with propriety call your attention for a few moments to some particulars of Franklin's life.

He was born at Spilsby, in Lincolnshire, in 1786, and early manifested an adventurous spirit. On one occasion, when at school, in his native county, he ran away one Saturday afternoon to the sea coast, twelve miles distant, to get a view of the ocean, and to use his own words, to make himself free of it, which he would have done by rushing into the water, notwithstanding that a heavy storm was then blowing, had he not been prevented by a chance spectator of his daring.

His father, observing his predilection for a seafaring life, sent him on a voyage to Lisbon in a merchant vessel, hoping to repress his inclination; but it had the contrary effect, and he soon afterwards

entered the navy at the age of 14, as midshipman of the *Polyphemus*, in which he served at the battle of Copenhagen. He next sailed under his cousin, Captain Flinders, and was with that officer, on the survey of the coasts of Australia, when the ship was wrecked. He was signal midshipman of the *Bellerophon*, at Trafaigar, and was in the *Bedford* at the attack of New Orleans, in 1815, where he was the first who boarded one of the American gun-boats, and gained great credit for his gallantry.

A few years afterwards we find him employed in Arctic researches. His extraordinary fortitude on that celebrated land expedition to the shores of the Polar Sea, when, with his companions, Sir John Richardson and Sir George Back, sufferings of the most appalling nature were borne with devout resignation, must be well known to you; but indeed in all his Arctic expeditions we find him displaying an endurance and heroism alike commanding our admiration and esteem, and evincing qualities which eminently fit him for the command of a perilous enterprise.

He has been particularly fortunate in the officers selected to serve under him in his present expedition. Captain Crozier, in command of the *Terror*, accompanied Sir James Ross in his Antarctic voyage, and Commander, now Captain Fitzjames, who served in the Euphrates Expedition, and afterwards in the war in China, is one of the most gallant and excellent officers in the service. The *Erebus* and *Terror* were speedily prepared for sailing. Their equipment differed, in one respect, from that of all ships previously

sent out on Arctic expeditions. This consisted in their being furnished with a small steam engine and Archimedean screw. But in the experimental trip made by the *Erebus*, to test the power of the screw, the utmost speed which could be attained did not amount to three knots an hour, although every means, as I can attest, having been on board at the time, were taken to increase this rate.

The *Erebus* carried 12 warrant and petty officers, and 58 seamen and marines; the *Terror*, 11 warrant and petty officers, and 57 seamen and marines; making a total of 138 men. The ships were provided with the most improved magnetical and meteorological instruments, and with everything which the experience gained by repeated Arctic researches could suggest. On the 19th of May, 1845, the expedition sailed.

Sir John Franklin's official instructions directed him to proceed up Lancaster Sound with as little delay as possible to pass through Barrow Straits, not stopping to examine any openings to the southward or northward until he reached the longitude of that portion of the land on which Cape Walker is situated, or about 98° west. From that point he is desired to use every effort to penetrate to the southward and westward, in a course as direct towards Behring Straits as the position and extent of the ice, or the existence of land at present unknown, may admit; but should this be impracticable; and if, on passing the strait between Devon and Cornwallis Island, it is found to be open and clear of ice, he is desired to consider well whether that strait which is marked Wellington Channel on the

map, may not offer a more practicable passage to the north-west.

Considerable discretionary power is, however, given to Sir John Franklin; for the instructions state, that "In an undertaking of this description much must always be left to the discretion of the commanding officer, and, as the objects of this expedition have been fully explained to you, and you already have had much experience on service of this nature, we are convinced we cannot do better than leave it to your judgment, in the event of your not making a passage this season, either to winter on the coast, with the view of following up next season any hopes or expectations which your observations this year may lead you to entertain, or to return to England to report to us the result of such observations, always recollecting our anxiety for the health, comfort, and safety of yourself, your officers, and men; and you will duly weigh how far the advantage of starting next season from an advanced position may be counterbalanced by what may be suffered during the winter, and by the want of such refreshment and refitting as would be afforded by your return to England."

On the 31st of May we have a pleasant account of the expedition, and of its commander, in a letter from Captain Fitzjames to Mr. Barrow, of the Admiralty, which the latter gentleman has kindly placed in my hands.

Captain Fitzjames says:—

"Sir John Franklin is delightful, active, energetic, and evidently even now persevering. What he has been we all know. I think it will turn out that he is

in nowise altered. He is full of conversation and interesting anecdotes of his former voyages. I would not lose him for the command of the expedition, for I have a real regard, I may say affection, for him, and believe this is felt by all of us. I have not seen much of Crozier yet, but what I have seen I like, and I think he is just made for a second to Sir John Franklin. In our mess we are all very happy, we have a most agreeable set of men, and I could suggest no change, except that I wish you were with us."

Again, on the 1st of July: "We did not go within 70 miles of Cape Farewell, but rounded it with a gale right aft, which followed us round with a heavy sea. We kept close reefed topsails, and reefed foresail, and made the old craft go eight knots through it. We lost no time, I can assure you; the only difficulty I had was to get Sir John to shorten sail when it was wanted. He is full of life and energy, with good judgment and a capital memory—one of the best I know. His conversation is delightful and most instructive, and of all men he is the most fitted for the command of an enterprise requiring sound sense and great perseverance. I have learnt much from him, and consider myself most fortunate in being with such a man; and he is full of benevolence and kindness withal."

The ships arrived at the Whale Fish Islands on July 4, 1845, from whence Captain Fitzjames writes on the 10th:—

"The work of clearing the transport provision-ship has been a heavy one: we counted on doing it in two or three days at most; but though we have

worked from 4 A.M. to 6 P.M. hard, we shall only finish this evening, and I hope, swing the ship to-morrow, and sail next morning, the 12th—rather late, but we can't help it; and if we have a good breeze and open sea to Lancaster Sound, we shall be there before the 1st of August, which will be plenty of time; but we must remember that Parry was 54 days doing it on one occasion.

"You have no conception how happy we all are; Sir John is delightful; I believe, however, I told you of him in a former letter. We hear that this is supposed to be a remarkably clear season, but have as yet had no good authentic intelligence. However, clear, or not clear, we must go ahead, as the Yankees have it; and if we don't get through, it won't be our fault. I can see, however, that even if there be a good passage, it is a perfect lottery what sort of season we have, and whether we happen to be at the particular spots at the most favourable moments.

"I like Crozier, he is a most indefatigable man and a good observer; just suited for his position, I should say."

Lieutenant Griffith, who commanded the transport, gives a cheering account of the expedition on the eve of its departure for Lancaster Sound. He says, "Sir John is to sail to-morrow morning (Sunday), very early. All are in the highest possible spirits, and determined to succeed if success be possible. I am very sanguine, knowing their capabilities, and having witnessed their arrangements, and the spirit by which they are actuated. A set of more undaunted fellows never were got together, or officers

better selected ; and never were ships more appropriately fitted, or better adapted for the arduous service they have to perform. We left them with every species of provisions for three entire years, independently of five bullocks, which they were consuming, the weather not being sufficiently cold to keep or freeze them, as was originally intended. They have also stores of every description for the same time, and fuel in abundance.

"I am indeed certain that, if the icy barriers will be sufficiently penetrable to give them but half the length of their ships to force themselves through, they will do so at all risks and hazard.

"God speed them, and send them by Behring Straits to their native England, covered with imperishable fame !"

The last accounts of the expedition bore the date of July 26, 1845, when Captain Dannett, of the *Prince of Wales*, whaler, fell in with the discovery ships, in Melville Bay, in $77^{\circ} 48'$ north latitude, and $66^{\circ} 13'$ west longitude, and reported that all hands were well and in high spirits.

Such were the favourable circumstances under which this expedition passed from our view behind that icy curtain which clings for the greater part of the year around the North Pole.

Little or no uneasiness was felt at the passing of 1846 without any intelligence arriving of the explorers. It was well known by the relatives and friends of Sir John Franklin who conversed with him on the subject of the north-west passage immediately before he sailed, that he did not expect to

effect it in one season. Writing to Colonel Sabine from Whale Fish Islands, he says :

"I hope my dear wife and daughter will not be over anxious if we should not return by the time they may have fixed upon, and I must beg you to give them the benefit of your advice and experience when that arrives, for you know well that even after the second winter, without success in our object, we should wish to try some other channel if the state of our provisions and the health of the crews justify it."

When, however, 1847 passed away, leaving us entirely ignorant respecting the fate of the expedition, it was felt that another year should not be allowed to elapse without sending in search of the explorers.

In the early part of 1847, several conferences had been held by the most experienced Arctic voyagers respecting the best mode of succouring Sir John Franklin in case he should not return, and it was eventually determined by the Admiralty that three expeditions should be equipped, one to follow in the track of the *Erebus* and *Terror*, through Lancaster Sound, one to be sent to Behring Straits, and the third, consisting of a boat party, to descend the Mackenzie, and search the American coast eastward of that river, leaving the coast to the west to be explored by boats belonging to the ships despatched to Behring Straits.

The command of the first expedition was given to Sir James Ross, who volunteered his services ; that of the second to Captain Kellett and Commander Moore ; and the third to Sir John Richardson, who, although but recently married, holding a lucrative

Government appointment, and no longer in the enjoyment of youth, had in the noblest manner, utterly regardless of the fearful privations and dangers which attach to an Arctic expedition, and with which former expeditions had made him familiar, volunteered to relieve his former companion Sir John Franklin.

Independently of these expeditions, an endeavour was made to interest the owners and captains of whalers in the search for the missing ships, by the offer of a reward of one hundred guineas to any party bringing information of the discovery ships.

But neither this amount, nor the more appropriate sum of 3000*l.* offered with the same views by Lady Franklin, who, I must here observe, has exhibited an amount of devotion in the cause of her husband befitting the partner of so gallant a man, induced the whalers to turn aside from their legitimate duties to seek for the missing ships; and although the reward was augmented in 1849 to 20,000*l.* it appears that it was understood to apply only to finding the missing mariners *alive*, so that the few whalers that had not sailed when the reward was offered did not think it worth their while to make any searching efforts, for those made by Captain Penny, of the *Advice*, and Captain Parker, of the *True Love*, were prompted by the Esquimaux' report that the discovery ships were in Lancaster Sound.

The Behring Straits' expedition consisted of the *Plover*, under Commander Moore, who was directed to join Captain Kellett, of the *Herald*, in the Pacific, and proceed with him to the Straits. The *Plover* sailed from England on the 31st of January; but,

being a miserably slow sailer, she did not arrive at the Sandwich Islands until the 22nd of August, far too late to prosecute the search in the Arctic seas during that year.

The expedition conducted by Sir James Ross consisted of the ships *Enterprise* and *Investigator*, built expressly for the occasion. Each ship carried a launch, fitted with a steam-engine and screw, of sufficient power to propel it at the rate of about five knots an hour.

They were provisioned for three years, and sailed on the 12th of May, 1848.

Sir James Ross was instructed, in the first instance, to examine the shores of Lancaster Sound, Barrow Straits, and, if possible, of Wellington Channel. The intervals of coast lying between Capes Clarence and Walker were next to be carefully explored. The *Investigator* was then to be secured for the winter near Cape Rennell, from whence parties were to be sent across the ice to look thoroughly into the creeks along the western coast of Boothia as far as Cape Nicolai. The *Enterprise* was directed to press forward to the westward, and endeavour to reach winter harbour in Melville Island, or Banks' Land. From this western station parties were to be despatched to communicate with Sir John Richardson on the north coast of America.

As a matter of course it was assumed that Sir James Ross might not be able to act on these instructions; and the result of the search powerfully testifies how much the Arctic voyager is at the

mercy of the thick-ribbed ice that coats the northern seas.

The southern shores of Lancaster Sound and Barrow Straits were examined; and the ships then stood over to the northern shore, and explored Maxwell Bay and some smaller indentations; but the ice was too heavy to allow Wellington Channel to be approached.

A compact pack extended from Cornwallis Island to Leopold's Island; and it was with great difficulty that the ships entered the harbour of Port Leopold on the 11th of September. That night the main pack closed the land, and completely sealed the mouth of the harbour.

Indeed, Sir James Ross observes, that "he believes so great a quantity of ice was never before seen in Barrow Straits at this period of the season." Under these circumstances no attempt was made to proceed to the westward in search of a harbour for the *Enterprise*, and both ships accordingly wintered in Port Leopold.

Though thus disappointed in the small advance made by the ships, it is doubtful, in Sir James Ross' opinion, whether a more eligible spot could have been selected for wintering than Port Leopold; for being at the junction of the four great channels of Barrow Straits, Lancaster Sound, Prince Regent Inlet, and Wellington Channel, it was hardly possible for any party, after abandoning their ships, to pass along the shores of any of those inlets without finding indications of Sir James Ross' proximity.

During the winter a great many foxes were trapped,

and copper collars having been provided, upon which a notice of the position of the ships, and of the depôts of provisions, was engraved, these were fastened round their necks, and the animals were liberated, in the hope that some of them might be the means of conveying the intelligence to the *Erebus* and *Terror*.

In the spring of 1849 exploring parties were organized. The most important was that headed by Sir James Ross, who left Port Leopold on the 15th of May, with 12 men and 40 days' provisions. They passed along the northern shore of North Somerset, as far as Cape Bunny, from whence they observed that the space between them and Cape Walker to the west, and Wellington Channel to the north, was occupied by very hummocky ice, while to the southward it appeared more favourable for travelling. They therefore followed the coast line, which assumes a nearly south direction from Cape Bunny, and travelled as far as $72^{\circ} 38'$ N. latitude in the direction of Cape Nicolai and the Magnetic Pole, which Sir James Ross would probably have reached had not his party been disabled by fatigue.

The extremity of their operations is Armitage Point, about 50 miles north of Cape Bird, and the state of the atmosphere being at the time peculiarly favourable for distinctness of vision, land of any great elevation might have been seen at the distance of 100 miles.

Sir James Ross returned to the ships on the 23rd of June. He states his party to have been so completely worn out by fatigue that every man was, from some cause or another, in the doctor's hands for two

or three weeks. During his absence small parties, provisioned for a few days only, had been despatched by Captain Bird, to the north shore of Barrow Straits, and to the east and west shores of Prince Regent Inlet; but in no instance were any traces of the absent expedition met with in these parts.

Sir James Ross now resolved on examining Wellington Channel, and extending his researches westwards; but he was unable to move his ships out of their winter harbour until the 28th of August, and then his intentions were completely frustrated by an extraordinary icy phenomenon.

The ships were on the edge of the pack ice, watching for an opening to push westwards, when a strong wind suddenly arose on the 1st of September, and brought the pack round them. In this they remained imbedded and stationary for a few days, when suddenly the whole body of ice began to drive to the eastward, and the vessels, still fixed in their icy cradles, were carried along the southern shore of Lancaster Sound, and out into Baffin Bay. Enormous icebergs surrounded the ships, presenting "the fearful prospect of the worst anticipations." Human power was utterly incapable of grappling with the strong arm of nature. A more terrible position it is impossible to imagine; and having heard from Sir James Ross the particulars relating to it, I do not hesitate to assert that, with the exception of that part of Sir George Back's voyage towards Repulse Bay, when his ship was borne on the ice through Frozen Strait, the chronicles of our Polar voyages, celebrated as they are for scenes of extra-

ordinary peril, contain nothing more eventful than the fate of the *Enterprise* and *Investigator*, when athwart of Pond's Bay.

But, in the words of Sir James Ross, "when least expected, their release was almost miraculously brought about." The great field of ice was rent into innumerable fragments, which were tossed here and there in chaotic confusion, literally realizing Coleridge's lines in the *Ancient Mariner* :—

" The ice was here,
The ice was there,
The ice was all around ;
It cracked and growled,
And roared and howled,
Like noises in a swound."

On the 25th of September the ships were fairly liberated ; and, "as the advance of winter had closed all the harbours, and it was impossible to penetrate to the westward through the part from which they had just been liberated," Sir James Ross decided on returning to England. His arrival without the missing navigators, or any intelligence of them, was a heavy disappointment to the country.

The Admiralty were totally unprepared for such a result. Having learned by a despatch from Sir James Ross, written from the Whale Fish Islands, that he intended sending back the *Investigator* for want of provisions for both ships in the ensuing season, they had despatched the *North Star*, laden with stores for the use of the searching expedition, with orders to prevent this step on the part of the *Investigator*, and with farther instructions, of which the thorough

search of Wellington Channel formed the most prominent feature.

It would be unjust, however, to pronounce this expedition a total failure. True, it failed in its main object of relieving Sir John Franklin and his companions in misfortune, but it has assured us that they have not abandoned their ships on the shores of Lancaster Sound and Barrow Straits, as far as Maxwell Bay on the north, and Cape Bunny on the south. Had they done so, some vestige of them would undoubtedly have been found; and thus the probability that they passed rapidly to the westward, during their first season, has received additional strength.

Nor have they sought the North American coast, between the Mackenzie and the Coppermine. That shore, including the larger inflections of the coast-line, is upwards of 800 miles in extent. It was, as you are aware, travelled by Sir John Richardson and Mr. Rae, without finding any traces of the missing ships, or hearing any tidings of them from the numerous bodies of Esquimaux with whom they had interviews.

And very recently we have received intelligence from Captain Kellett and Commander Moore, by which we learn that, up to the 2nd of October last, no traces of Sir John Franklin were met with in or near Behring Straits.

These official accounts contradict for ever the reports with which the public, rendered credulous by their wishes, have, from time to time, been deluded.

You will doubtless remember how the gloom which,

month by month, has been settling down, deeper and darker, on the fate of the long-absent expedition, was suddenly broken, by the announcement of Sir John Franklin's safety, based on the authority of an Esquimaux, who made a sketch of the *Erebus* and *Terror*, as also of the ships commanded by Sir James Ross; and represented them as frozen up at the mouth of Prince Regent Inlet.

The inaccuracy of this intelligence should be a caution to us to be very slow in believing the statements of Esquimaux, which, indeed, are rarely to be depended on.

It may be assumed as a result of the relieving expeditions, that Sir John Franklin, finding Barrow Straits as clear as when Sir Edward Parry passed it, pushed directly to Cape Walker, and, proceeding to the south-west, his ships have become entangled in some of the passages between Victoria, Banks', and Wollaston Lands.

This hypothesis renders the journey which Mr. Rae proposed to undertake last summer, of the deepest interest.

That gentleman volunteered to conduct an exploring party to the northern shore of Banks' Land.

He was to descend the Coppermine in the month of July, and cross as soon as possible from Cape Krusenstern to Wollaston Land, and endeavour to penetrate to the northwards, erecting signal columns, and making deposits on conspicuous headlands.

It is gratifying to know that large herds of deer migrate over the ice in the spring, from the main

shore to Victoria and Wollaston Lands. I have the authority of Sir John Richardson for saying that, with ordinary skill in hunting, a large supply of food may be obtained on the shores of these lands in the months of June, July, and August. Seals are also numerous in those seas, and are easily shot, their curiosity rendering them an easy prey to a boat party. In these ways, and by fishing, the stock of provisions might be greatly augmented. And we have the recent example of Mr. Rae, who passed a severe winter on the very barren shores of Repulse Bay, with no other fuel than the withered tufts of an herbaceous andromeda, and maintained a numerous party on the spoils of the chase alone, for a whole year.

These facts forbid us to despair, should Sir John Franklin have been obliged to abandon his ships in the vicinity of Banks' Land; and, should he have sought the North American coast between the Mackenzie and Behring Straits, we may hope that the boat expedition under Commander Pullen, which was despatched from the *Herald* and *Plover* to search that line, will fall in with him.

A more perplexing and painful category is, that the missing expedition may have attempted the north-west passage through Wellington Channel. I know that it was Sir John Franklin's intention to try this opening in the second season after his departure, should he fail in forcing a passage to the south-west of Cape Walker. Our knowledge of Wellington Channel is exceedingly scanty. Beyond

its entrance we may be said to know nothing ; but when Parry's expedition passed it, it presented a clear expanse of open water.

That inlet must be examined before we can regard the search of the missing expedition as complete.

But more than this remains to be done. The expedition under Sir John Franklin was sent out by this country to encounter danger, and England is bound to omit no effort to relieve the brave men who volunteered their services for their country's glory.

The enterprise commenced when the party left our shores, and it cannot be regarded as completed till either they (or the survivors of them) are restored to us, or the melancholy certainty is obtained that they can never return.

It is a remarkable fact, and one particularly cheering at this moment, that the Arctic expeditions have been attended with a singularly slight loss of life. Out of nine dispatched to the Polar regions, which employed six hundred and nine officers and men, only seven persons died from causes directly or indirectly connected with the expeditions, although they were severally absent from England an average period of three years.

The case of Sir John Ross' expedition, which was absent during four years, and returned with the loss of only two men, will be in your recollection ; but the history of another expedition is even more extraordinary :—In the early part of the seventeenth century, Barentz, who had been sent out by the Dutch to discover the north-west passage, was wrecked, and with his companions, fifteen in number, passed the en-

ture winter in the seventy-sixth parallel of latitude, deriving a subsistence by eating foxes, which were abundant. They left their winter quarters, on the breaking up of the ice, in two open boats; and after the most desperate exertions, continued during two months, they reached Kilduin, in Lapland, a distance of upwards of a thousand miles, with the loss of only two men.

Such a deliverance as this is full of cheering hope with regard to the present missing expedition.

There is, probably, more danger to be apprehended from the well-known energy and zeal of the parties themselves than from any other cause. Franklin left our shores feeling that the eyes of the civilized world were on him, and that it was hoped and expected he would accomplish what our most learned hydrographers regard as feasible. He will not, therefore, abandon the struggle with mighty icebergs and thick-ribbed ice, as long as the smallest chance of obtaining the much-desired prize remains. It is recorded that when attempts were made to dissuade Sir Martin Frobisher from engaging in the discovery of a north-west passage, he answered, "It is the only thing in the world that is left yet undone whereby a notable mind might be made famous and fortunate."

The apprehension is, that the efforts of our countrymen have been rashly prolonged beyond the period of safety; but on this very account should our exertions to save them be increased.

You are aware that an expedition, consisting of the ships recently commanded by Sir James Ross, has just left our shores under the direction of Captain Collin-

son, for Behring Straits, from which a search is to be continued to Melville Island, a distance of 900 miles. In despatching this expedition, it is assumed that a passage for ships exists through those undiscovered seas. The recent researches of the *Herald* and *Plover* have shown that the soundings to the north of Behring Straits are shallow, thus evidencing the existence of land at no very great distance; and Captain Kellett states that he saw high peaks to the north-east, which are probably a continuation of the mountains to the north of Cape Jakan.

We know that Melville Island can be reached through Barrow Straits, but have yet to learn whether it can be attained from the west. Should the *Enterprise* or *Investigator* succeed in making the western shores of that island, the problem of the north-west passage will be solved.

I am far from regarding the Behring Straits' expedition as useless, but I hold that we are more likely to find some vestige of our long-absent countrymen by following their track than by seeking them in unknown seas.

It is, therefore, extremely gratifying to me to be able to state, that the Government announced last night in the House of Commons that it was their intention to send another expedition to Barrow Straits, to continue the search interrupted by the return of Sir James Ross.

I was present when the question was brought forward, and, judging by the unanimous feeling that was manifested on the occasion in favour of doing everything in our power to relieve our unfortunate country-

men, and by the expressions of the First Lord of the Admiralty, there is every reason to conclude that the most effectual steps will be taken.

It is greatly to be desired that the proposed expedition shall consist of a sufficient number of ships, with auxiliary steam power, to enable a thorough search to be made from the meridian where Sir James Ross was compelled to turn back, to the west of Melville Island. It is manifest that two ships clinging to each other, as has been the invariable custom of those composing the Arctic expeditions, cannot undertake a search to the north and south-west of Cape Walker in one season; and yet it is of paramount importance to bear in mind that the search this year should be as complete as possible.

The examination of Wellington Channel alone will occupy one or two vessels during the open season, and to this most important duty a separate expedition should be accorded.

It is too late to talk of the expense of such undertakings. This should have been considered before. But, indeed, such a consideration is unworthy this great nation. Englishmen have at all times been ready to go forth on great and perilous missions; but this spirit can only be effectually preserved by showing that the country will not desert them in the hour of danger.

There is no want of volunteers in the cause of relief, and it is to be hoped that no official etiquette will stand in the way of the employment of the most efficient. It would be exceedingly desirable to make the whaling ships available, by sending an extra sup-

ply of provisions in each ship in case of falling in with the missing expedition.

Another important circumstance, which should not be lost sight of, is the early sailing of the relief expeditions, so that the ships may take advantage of the first opening in the ice to push westwards.

It is evident that the period during which the Arctic seas can be navigated is exceedingly variable, and we can have no better proof of this than the records of the Scandinavians having fished in Lancaster Sound during the month of May.

You are aware that, among the numerous schemes for communication with Sir John Franklin, the employment of balloons has been strongly recommended. Parties have been sufficiently daring to volunteer ascending in a balloon from the Arctic seas, by which means, supposing an elevation of one mile were attained, a very extensive panoramic view would be gained; and, presuming the balloon to be retained captive, I see no reason why this method should not be adopted.

The utility of messenger balloons, however, is so obvious that I am happy to say the Admiralty purpose sending about 50 of the kind of balloons constructed by Mr. Shepherd, who proposed their adoption, in each relief ship.

That gentleman is now present, and has kindly prepared one of these balloons on a smaller scale, which he will elevate at the conclusion of the lecture, when you will have an opportunity of seeing it*. For

* A balloon was accordingly sent up, carrying a match and numerous bundles of messages, which fell among the audience, as the lighted match was consumed.

the present, therefore, I will only say that to a slow match, of about six yards in length, between 2000 and 3000 messages, printed on thin paper, and varnished, will be fastened in bundles, at intervals of about six inches. The match is attached to the balloon, and lighted at the moment of liberation, and as it burns away each bundle of messages will fall in turn, and be scattered over the country, while the balloon continues its course.

Mr. Shepherd has made a great number of experiments, for the purpose of testing the best materials for such balloons, and finds that gold-beater's skin is more suitable than any other substance. The gas will be generated by pouring sulphuric acid on granulated zinc.

It is worthy of mention, as a proof of the enormous distances sometimes traversed by these balloons, that one which was liberated at Manchester, was found in the Atlantic, at the distance of 2000 miles from England.

Arrangements have been made with the Hudson's Bay Company to direct Mr. Rae to continue his search for the missing expedition during the ensuing summer, should his exploration towards Banks' Land have been unsuccessful; and, through the kind intervention of Baron Brunnow, rewards will be offered to the natives inhabiting the Emperor of Russia's American dominions for any relief which they may afford to men cast on their coasts.

This solicitude warrants us in hoping that the rulers over this great nation will take care that everything in their power shall be done to save our brave countrymen.

There is another great nation beyond the Atlantic, who, it is hoped, will also hold out a helping hand—I allude to the United States of America. In answer to Lady Franklin's touching appeal, the President of that country has strongly urged the appropriation of a sum of money, to equip an expedition of relief, and letters which Lady Franklin has received communicate the gratifying intelligence that a subscription has been commenced for a private expedition, which is headed by a retired merchant of great wealth and influence, with the munificent sum of 5000 dollars, which he has since increased to 15,000.

These manifestations of sympathy do more to bind the two countries in bonds of peace and concord than diplomatic conferences and political alliances.

The cause of humanity belongs alike to all countries and all parties, and it would be a glorious spectacle to behold the flags of many nations going forth in such a cause, to succour and to save.

NOTE.

SINCE this Lecture was delivered, the plans of the Admiralty have been made public. Two sailing ships, the *Baboo* and the *Ptarmigan*, and two steamers, the *Fider* and the *Free Trader*, will be sent to Barrow Straits, and adjacent localities, under the command of Captain Austin, who acted as First Lieutenant of the *Fury*, in Parry's third voyage in 1824.

Independently of these, Captain Penny, late of the *Advice*, whaler, has been authorized by the Admiralty to fit out two ships, and to proceed in them to the same straits, in search of Sir John Franklin.

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