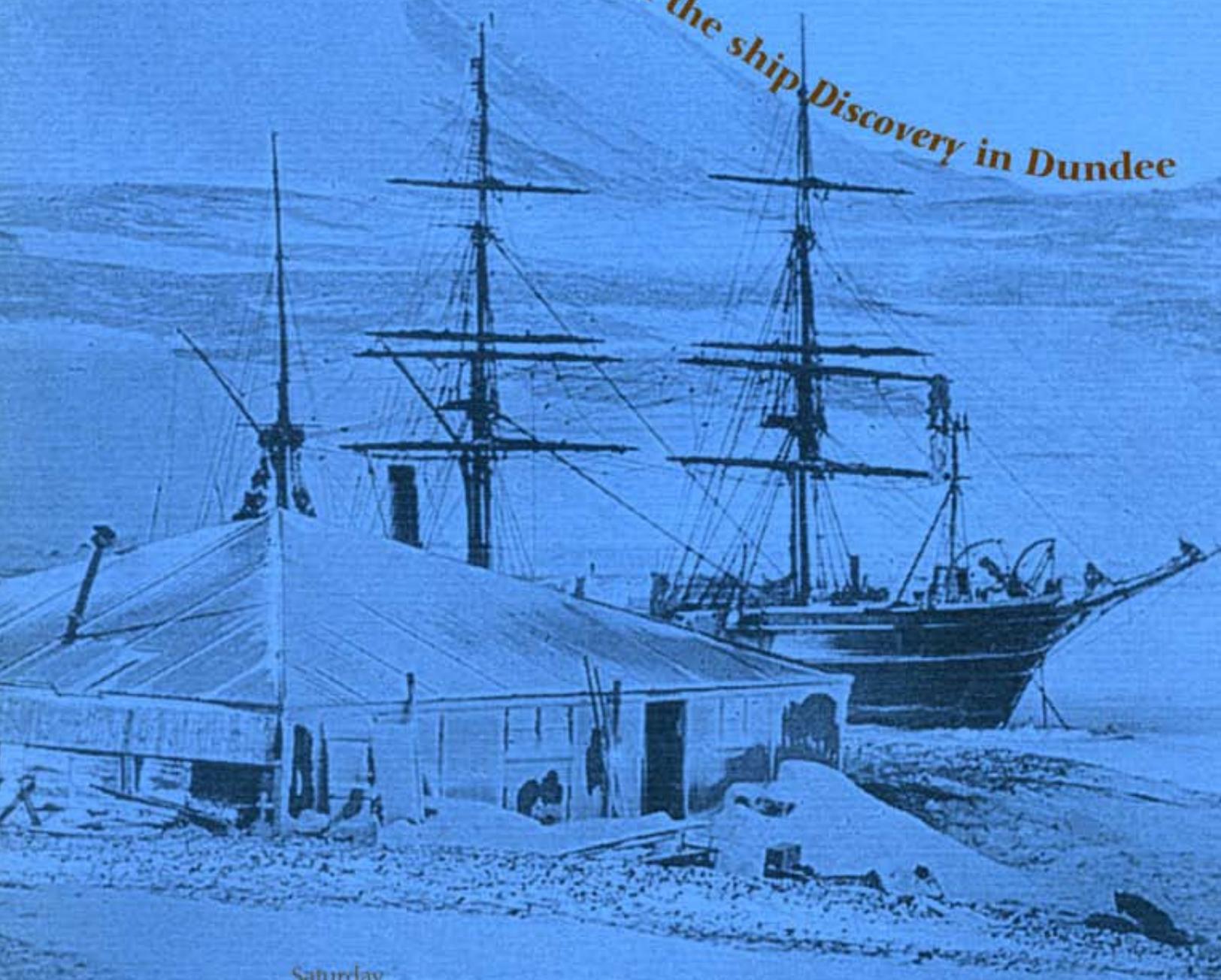
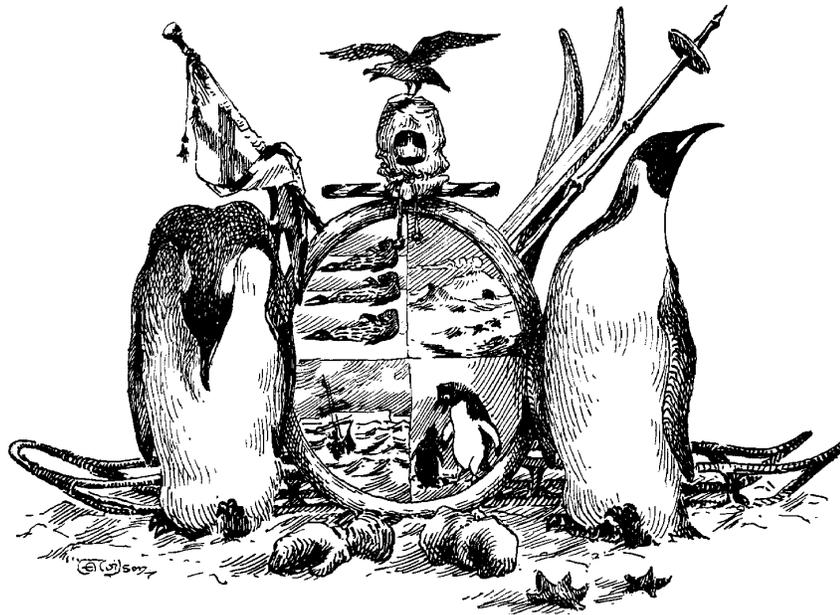


An Antarctic Evening on board the ship Discovery in Dundee



Saturday
5 May 2001
Discovery Point
Dundee
Scotland





The Arms of the *Discovery*



"Discovery in winter quarters, McMurdo Sound looking north." Watercolor by E.A. Wilson. (SPRI 1240)

AN ANTARCTIC EVENING

ON BOARD THE SHIP
DISCOVERY IN DUNDEE
SATURDAY 5 MAY 2001

🍷 🍷 *A Keepsake commemorating the event & including a listing of those in attendance, the evening's program, the food and drink consumed, much about the Discovery and her time in the Antarctic and her noble lineage, various & sundry particulars on the National Antarctic Expedition and the men who participated in it, some excerpts from diaries and other publications—many long out-of-print {and including the first known re-issue of a rare first-person account of the expedition}—numerous photographs & drawings, &c, &c.*



THOSE ATTENDING

Antony Bowring, Saxmundham, Suffolk. (*Member, Trans-Globe Expedition; the Bowring family owned Scott's Terra Nova*)

Jill Bowring, Saxmundham, Suffolk. (*Member, Trans-Globe Expedition*)

Robert Burton, Hemingford Abbots, Cambridgeshire. (*Antarctic traveller and historian; former director, South Georgia Whaling Museum*)

Mary Royds Cleveland, St. Mary's, Isles of Scilly. (*Cousin of Charles W. R. Royds, RN, Discovery expedition*)

Cathy Cooper, Twickenham. (*Antarctic traveller and collector*)

Ian Cumming, St. Andrews, Fife. (*Antarctic traveller; dentist at Grytviken with the Falkland Islands Dependencies Survey, 1962-64*)

Wendy Driver, Twickenham. (*Antarctic traveller and collector; travel editor, The Mail on Sunday*)

Sandy Macklin, Aberdeen. (*Son of Dr. Alexander H. Macklin, Endurance and Quest expeditions*)

Falcon Scott, Craobh Haven, Argyll. (*Grandson of Captain Robert Falcon Scott*)

Judy Skelton, London. (*Granddaughter of Reginald W. Skelton, RN, Discovery expedition*)

Michael Smith, London. (*Journalist; author of An Unsung Hero: Tom Crean – Antarctic Survivor*)

Robert B. Stephenson, Jaffrey, New Hampshire. (*Antarctic traveller and collector; Coordinator, The Antarctic Circle*)

David M. Wilson, Enfield, Middlesex. (*Grandnephew of Dr. Edward A. Wilson, Discovery and Terra Nova expeditions*)

David E. Yelverton, Hitchin, Hertfordshire. (*Antarctic historian; author of Antarctica Unveiled: Scott's First Expedition and the Quest for the Unknown Continent*)

THE EVENING'S PROGRAM

Aboard the *Discovery*
Saturday 5 May 2001

Viewing of exhibits on shore at Discovery Point
for those arriving beforehand.



Drinks & assorted Canapés
in the *Pig & Whistle*
or on deck if fair



Guided tour of the *Discovery* at 7:30 p.m.



Dinner to commence in the Wardroom at 8:00 p.m.

Fresh Smoked Tay Salmon Parfait
Medallion of Aberdeen Angus Beef in Whisky Sauce
Passion Fruit Syllabub
Red and White Wines
Coffee & Tea
Scottish & Continental Cheeses
with Oatcakes and assorted Crackers
Discovery Port



THE DINNER will be preceded and followed by—and interspersed with—appropriate greetings, toasts, poems, songs, recitations, genealogical discursions, anecdotes & other topical pieces, and above all else, intelligent & informed conversation of a south polar nature, all for the edification & entertainment of the assembled.



Disembarkation at or before Midnight.

THE SHIP'S COMPANY 1901-04

OFFICERS AND SCIENTIFIC STAFF

Robert Falcon Scott, CAPTAIN, RN
Albert Borlase Armitage, LIEUT., RNR, NAVIGATOR AND SECOND-IN-COMMAND
Michael Barne, LIEUT., RN
George Frederick Arthur Mulock, LIEUT., RN* *Relieved Shackleton*
Charles Wyatt Rawson Royds, LIEUT., RN, FIRST LIEUTENANT
Ernest Henry Shackleton, SUB-LIEUT., RNR* *Returned on Morning*
Reginald William Skelton, ENGINEER LIEUT., RN, CHIEF ENGINEER
Louis Charles Bernacchi, PHYSICIST *Joined at the Lyttelton*
Hartley Travis Ferrar, GEOLOGIST
Thomas Vere Hodgson, MARINE BIOLOGIST
Reginald Koettlitz, SURGEON AND BOTANIST
Edward Adrian Wilson, Surgeon, ZOOLOGIST AND ARTIST

WARRANT-OFFICERS, RN‡

Frederick E. Dailey, CARPENTER
James H. Dellbridge, SECOND ENGINEER
Thomas Alfred Feather, ACTING BOATSWAIN
Charles Reginald Ford, SHIP'S STEWARD

PETTY OFFICERS, RN

David Silver Allan
Jacob Cross
Edgar Evans
Thomas Kennar
William MacFarlane* *Returned on Morning*
William Smythe

MARINES

Arthur Henry Blissett, L/CPL., RMLI
Gilbert Scott, PRIVATE, RMLI

CIVILIANS

Horace C. Buckridge, LABORATORY ATTENDANT*
Joined at Cape Town. Returned on Morning
Charles Clarke, COOK
Clarence H. Hare, ASSISTANT STEWARD*
Joined at Lyttelton. Returned on Morning

SEAMEN

Charles T. Bonner, RN
Joined at Cape Town. Died 21 December 1901
Henry R. Brett, MN COOK* *Returned on Morning*
Thomas Crean, RN *Joined at Port Chalmers*
George Beaver Croucher, RN *Joined at Cowes*
James William Dell, RN
James Duncan, MN SHIPWRIGHT*
Returned on Morning
Jesse Handsley, RN *Joined at Port Chalmers*
William Lofthouse Heald, RN
Ernest Edward Mills Joyce, RN *Joined at Cape Town*
William Peters, RN* *Returned on Morning*
Arthur Pilbeam, RN
George Thomas Vince, RN *Died 11 March 1902*
John D. Walker, MN* *Returned on Morning*
William Isaac Weller, MN DOG HANDLER
Joined at the Lyttelton
John F. Frank Wild, RN
Thomas Soulsby Williamson, RN

STOKERS

William Hubert, MN DONKEYMAN*
Returned on Morning
William Lashly, RN
William Page, RN* *Returned on Morning*
Frank Plumley, RN *Joined at Cape Town*
Arthur Lester Quartley, RN
Thomas Whitfield, RN

This list—taken from that given by Scott and amended from Erskine's article in the *Naval Review*—includes not only those who sailed from Cowes, but those who joined or left the Expedition later. The abbreviation MN indicates Merchant Navy; RMLI, Royal Marine Light Infantry. *Wintered for one season only. ‡Erskine tells us that these were given acting rank in 1901 for the expedition only, but Dailey and Feather attained WO rank during it. Source: Savours, *The Voyages of the Discovery*, pp. 26-27. Additional information from Yelverton, *Antarctica Unveiled*, and other sources. Others not included (from Yelverton) who deserted, were discharged, invalided, etc.: Miller, Dowsett, Roper, Waterman, Mardon and Masterton.



Top Right: Plumley.

Back Row: Blissett, Allan, Wild, Croucher, Kennar, Handsley, Lashly, Crean, Dell, Evans, Clarke, Weller.

Middle Row: Pilbeam, Joyce, Williamson, Heald, Cross, Smythe, Scott.

Front Row: Ford, Feather, Armitage, Mulock, Shackleton, Wilson, Skelton, Scott, Royds, Koettlitz, Bernacchi, Ferrar, Hodgson, Dellbridge, Dailey.

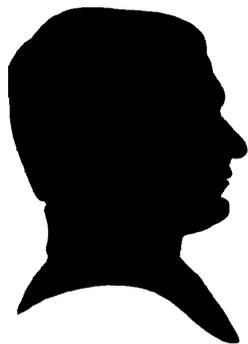
Not shown: Barne, Bonner, Brett, Buckridge, Duncan, Hare, Hubert, McFarlane, Page, Peters, Quartley, Vince, Walker and Whitfield.

THE ANTARCTIC VETERANS (BEFORE AND AFTER DISCOVERY)

ELEVEN MEN of the *Discovery* were or were to be Antarctic veterans. The only one to have been there before was Louis Bernacchi who was on the *Southern Cross* expedition (1898-1900). Tom Crean, Edgar Evans, William Heald, William Lashly, Robert Scott, Thomas Williamson and Edward Wilson returned on the *Terra Nova* expedition. Shackleton and Wild were on the *Nimrod*, *Endurance* and *Quest* expeditions—Wild was also on Mawson's Australasian Antarctic Expedition—and Ernest Joyce was a member of Shackleton's Ross Sea Party. Most of the biographical details below are drawn from [Wilson's] *Diary of the 'Discovery' Expedition*, edited by Ann Savours.

LOUIS CHARLES BERNACCHI. *Physicist and Magnetic Observer*

Born 1876 in Tasmania. Spent two years at Melbourne Observatory. Magnetic and meteorological observer during the *Southern Cross* expedition, 1898-1900. Author of papers



on the meteorological and magnetic work of the expedition and on the topography of South Victoria Land, published in the *Geographical Journal*; also of a narrative of the expedition entitled *To the South Polar Regions* (London, 1901). Joined

the *Discovery* in New Zealand. The physical and magnetic observations made during the 1901-04 expedition were published by the Royal Society in 1908 and 1909 respectively, as part of the scientific results. He travelled widely on his return from the Antarctic and wrote a number of papers in the *Geographical Journal* and elsewhere. He served in the Royal Naval Volunteer Reserve during the First World War. In 1925 he planned to lead an Antarctic expedition, which never materialised, and in 1930 he organised the British Polar Exhibition and helped to organise the Second International Polar Year 1931-32. He published a life of L.E.G. Oates in 1933 under the title *A Very Gallant Gentleman*, and the *Saga of the Discovery* in 1938. He returned to the R.N.V.R. at the

outbreak of the Second World War, but his health began to fail and he died in London on 24 April 1942.

THOMAS CREAN. *Able Seaman*, RN
Born 20 July 1877 near Anascaul, Ireland. Joined the expedition from H.M.S. *Ringarooma* at Port Chalmers, New Zealand. Petty Officer, RN during the *Terra Nova* expedition, 1910-13. Second Officer aboard *Endurance* during the Imperial Trans-Antarctic expedition, 1914-16. Member of *James Caird* boat-party from Elephant Island to South Georgia. Died on 27 July 1938. Frank Debenham wrote of him in the *Polar Record*: “Tom Crean was in his way, unique; he was like something out of Kipling or Masfield, typical of his country and a credit to all his three expeditions.”

EDGAR EVANS. *Petty Officer*, RN
Born 1876 at Middleton, Wales. Joined the expedition from H.M.S. *Majestic*. Nicknamed “Taff”. Accompanied Scott on the 1,100 mile polar plateau sledge journey in 1903. Returned to the Antarctic on the *Terra Nova* expedition, 1910-13. Died on 17 February 1912 during return from South Pole. Described by Scott in his journal as “a giant worker with a really remarkable head-piece.”

WILLIAM L. HEALD. *Able Seaman*, RN
Born at York. Followed a course of instruction in ballooning at Aldershot before sailing in *Discovery*. Saved Ferrar’s life in 1902 when the latter was dying of scurvy out on the trail. Petty Officer, RN, during *Terra Nova* expedition, 1910-13.

ERNEST EDWARD MILLS JOYCE. *Able Seaman*, RN
Born 1875. Joined the expedition from H.M.S. *Gibraltar* at Cape Town. Left Royal Navy (Petty Officer) by purchase to join Shackleton’s *Nimrod* expedition, 1907-09. He was a member of the Ross Sea Party during the *Endurance* expedition. In 1900 chose dogs in Copenhagen for Mawson’s *Aurora* expedition, 1914-17. He died on 2 May 1940. Shackleton wrote of him: “If there is one man I can trust to lay the depots it is your good self . . . that was proved at a critical time in 1908 when I returned from the long trek south.”

WILLIAM LASHLY. *Stoker*, RN
Born at Hambledon, Hampshire. Joined the

expedition from H.M.S. *Duke of Wellington*. Instructed in balloon work at Aldershot. Chief Stoker, RN, during *Terra Nova* expedition, 1910-13. His diary of the *Terra Nova* expedition was published in a limited edition by the University of Reading, 1938-39. Served for some years as a Customs Officer at the Cardiff docks. Died on 12 June 1940 at Hambledon. His house there was named “Minna Bluff.” Admiral Evans said of him: “I owe my life to Lashly’s devotion and his admirable duty-sense.” Cherry-Garrard noted in the *Polar Record*: “Lashly looked nothing out of the way till he stripped. He stripped big and looked small: was tough as nails rather than muscular; and neither drank nor smoked.”

ROBERT FALCON SCOTT. *Commander*, RN
Born 6 June 1868 at Devonport. Entered the Royal Navy in 1886. In the *Rover* (Training Squadron) 1887-88. With Captain Hulton in the *Amphion* 1889 and navigator in the *Sharpshooter*. Torpedo Lieutenant, serving under Captains Hall, Durnford, Robinson and Jackson. Spent four years in sailing ships. Torpedo Lieutenant of the *Majestic*, 1898-99, under Captain Egerton. Took a special course in surveying, 1898-99, and in magnetic observation 1900. Commander, 1900; Captain, 1904. On the return of the *Discovery* expedition he was made a gold medallist of the Royal Geographical Society and similarly honoured by other learned societies and institutions. Wrote *The Voyage of the “Discovery”*, published 1905. Led the *Terra Nova* expedition, 1910-13, and died on the return journey from the South Pole, March 1912. His diaries were published posthumously, 1913, as *Scott’s Last Expedition*.



ERNEST H. SHACKLETON. *Third Lieutenant*, RNR
Born 15 February 1874 at Kilkea, Co. Clare. Nicknamed “Shackle”. Entered the Merchant Service in 1890, served in sailing ships in the

Pacific, afterwards with the Union Castle Line. During the expedition he was in charge of sea water analysis and was also editor of *The South Polar Times*. Invalided after the first year in the Antarctic, returning to England in the relief ship *Morning*. He subsequently organised and led three expeditions to the Antarctic in 1907-09 (*Nimrod*), 1914-17 (*Endurance*) and 1921-22 (*Quest*). During the last, on 5 January 1922, he died and was buried at Grytviken, South Georgia. He wrote *The Heart of the Antarctic* (1909) and *South* (1919). Knighted in 1909.



course at St. George's Hospital. During the *Discovery* expedition he was described as the life and soul of the party—the organizer of all amusements, always good tempered and cheerful, the ingenious person who could get round all difficulties, and as knowing no fear. He

FRANK WILD. *Able Seaman, RN*

Born 1874 at Skelton, Yorkshire. Joined the expedition from H.M.S. *Vernon*. Member of *Nimrod* expedition, 1907-09, accompanying Shackleton on farthest south party. Leader of Queen Mary Land wintering station during Mawson's Australasian Antarctic expedition, 1911-14. Second in command during *Endurance* expedition, 1914-16. Led expedition to Spitsbergen, 1918-19, when Shackleton recalled. To Nyasaland as farmer 1920. Second in command of *Quest* expedition, 1921-22, succeeding to command on Shackleton's death, 1922. To Swaziland 1922, thence to Johannesburg, where he died in 1939.

was appointed Chief of the Scientific Staff on the *Terra Nova* expedition. To its work, both general and scientific, he contributed with his wonted industry and keenness, and his mid-winter expedition to the penguin rookery at Cape Crozier was a feat of endurance hardly to be matched in Polar travel. Died with Scott and Bowers on return from the Pole in March, 1912. Of a modest and retiring disposition, Wilson was perhaps really known to but a few intimate friends. All who did know him are unanimous in their testimony on the one hand to his deeply religious character, his strong sense of duty, his ascetic purity; and on the other, to his kindness, his keen sense of humour, his enthusiasm and jousness, qualities of the utmost value in an undertaking like a Polar expedition. ❧

THOMAS S. WILLIAMSON. *Able Seaman, RN*

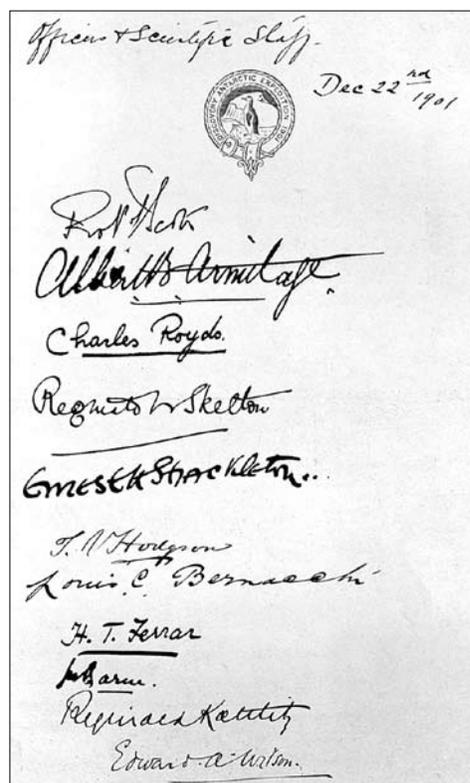
Born 1877 in Sunderland. Joined the expedition from H.M.S. *Pactolus*. Petty Officer, RN during *Terra Nova* expedition, 1910-13. A member of the search party that found Scott, Wilson and Bowers. Died in January 1940. Scott wrote of him: "A well built, tall, strong man, and an excellent working hand."



Previously unpublished photograph of Williamson and his children (?) aboard the *Terra Nova*.

EDWARD ADRIAN WILSON. *Surgeon, Zoologist and Artist*

Born on 23 July 1872 in Cheltenham. After passing through Cheltenham College he went up to Caius College, Cambridge. Rowing was his favourite recreation. His bent lay chiefly towards the career of a field naturalist, but the need of taking up some definite calling led him to turn to medicine, and he went through the usual



SOME OTHER MEN OF THE DISCOVERY

FOR MOST OF the Ship's Company the expedition was to be their only Antarctic venture although some had been to the Arctic or would later go there. Included below are some of those whose silhouette studies—the work of Edward Wilson—appeared in *The South Polar Times*. Most of the biographical details are from [*Wilson's*] *Diary of the 'Discovery' Expedition*, edited by Ann Savours.

ALBERT B. ARMITAGE. *Navigator and Second in Command*, Lieut. RNR

Born 1864 in the Braes of Balquhidder, Perthshire. Nicknamed “the Pilot”. *Worcester* cadet 1878. Chief Officer of the Peninsular and Oriental Steam Navigation Company. Second-in-Command of the Jackson-Harmsworth expedition, 1894-97, to Franz-Josef Land, when he took charge of the magnetic, meteorological and astronomical work,



and gained experience of ice navigation and sledge travel. Received the Murchison Award of the Royal Geographical Society in 1898. During the *Discovery* expedition he was Second-in-Command and Navigator. His narrative of the expedition was published in 1905, entitled *Two Years in the Antarctic*. It was illustrated with pen drawings by Edward Wilson. He became Captain, P. and O. in 1907; Commodore, P. and O. in 1923, and retired in 1926. He was at sea throughout the First World War, carrying mails, troops and food and he was torpedoed in 1917. His autobiography *From Cadet to Commodore* appeared in 1925. Died 31 October 1943. In his obituary of Armitage, Frank Debenham wrote: “There is a toast which . . . ought to be drunk whenever the great deeds of an expedition and its leader are being honoured, and that is ‘To the Second in Command’.”

MICHAEL BARNE. *Second Lieutenant*, RN
Born 1877 at Beccles, Suffolk. Joined H.M.S. *Britannia*, 1891. Served in H.M.S. *Majestic* and on



China Station. Nicknamed “Mik.” Trained for the *Discovery* expedition at the Ben Nevis Observatory, winter 1900, where he took a course on magnetism. Assistant magnetic observer during the expedition and in charge of the sounding apparatus. In 1904 he resumed his Naval

career, serving with distinction in the Dardanelles and Dover Patrol during the First World War and on anti-submarine patrol and “small boats” for part of the Second. When commander of H.M.S. *Majestic* in 1914 he received the Royal Humane Society's Silver Medal for diving overboard in an attempt to rescue a sailor during an Atlantic gale. He retired with the rank of Captain in 1919. Died in May 1961. Scott said of him, “I had thought of him, as he proved to be, especially fitted for a voyage where there were elements of danger and difficulty.”

HARTLEY T. FERRAR. *Geologist*

Born 1879 at Dalkey, Ireland. Educated at Oundle School and Sidney Sussex College, Cambridge, taking the Natural Science Tripos shortly before the expedition sailed. In charge of geology and also



of sea water analysis (after Shackleton). His report on field geology was published in 1907 as part of VOL. I (Geology) of the expedition's scientific results. In 1905 he joined the geological section of the Survey Department in Egypt, and remained there until 1913 when he went to New Zealand as a master at

Christchurch College. During the First World War he served with the New Zealand Expeditionary Force mainly in Palestine. In 1919 he joined the New Zealand Geological Survey and worked in New Zealand until his death in April 1932.

THOMAS V. HODGSON. *Biologist*



Born 1864 in Birmingham. Nicknamed “Muggins”. Of necessity had pursued a business career until able to devote himself to marine biology at the Marine Biological Station, Plymouth. Curator of the Plymouth Museum. He was concerned on the return of

the *Discovery* expedition with the publication of its scientific results, particularly with those relating to marine invertebrates. He had previously worked on the *Southern Cross* collections and later on those of the Scottish National Antarctic Expedition, 1902-04. He was re-appointed Curator of the Plymouth Museum on his return from the Antarctic, but suffered from ill-health until his death in May 1926.

REGINALD KOETTLITZ. *Surgeon and Botanist*
Born 1861 at Ostend, the oldest member of the



expedition. Trained at Guy's Hospital, London. In country practice for seven years. Surgeon during Jackson-Harmsworth Expedition to Franz-Josef Land, 1894-97. Afterwards accompanied expeditions to Abyssinia, Somaliland and Brazil. Bacteriologist. On the return

of the *Discovery* expedition he practised in South Africa, where he died of dysentery at Port Elizabeth, in 1916.

GEORGE F. A. MULOCK. *Third Lieutenant and Surveyor, RN*

Born February 1882. Joined H.M.S. *Britannia* 1895. Served in H.M.S. *Victorious* in China and in H.M.S. *Magnificent* in the Channel Squadron. Relieved Shackleton during the expedition. Surveyor



and cartographer, having received survey instruction in H.M.S. *Triton*. On the return of the expedition, he was lent by the Admiralty to the Royal Geographical Society to complete the compilation of the survey. His results were published by the Society in 1908 as *The Charts of the Discovery Expedition*. During the

First World War, he served with distinction in the Gallipoli campaign. In 1920 he retired from the Navy and joined the Asiatic Petroleum Company as Marine Superintendent at Shanghai. He later saw service during the Second World War, for part of which he was a prisoner in Japanese hands. Died in Gibraltar on 26 December 1963.

CHARLES W. RAWSON ROYDS. *First Lieutenant, RN*
Born 1876. *Conway* cadet. In the *Champion* (Training Squadron) under Captain Cross; then in the destroyer squadron at the Nore under

Commander de Robeck; then in the *Crescent* flagship, West Indies. Nicknamed "Frosty". Trained in meteorology at the Ben Nevis Observatory, winter 1900. In charge, during the expedition, of the meteorological work. Also supervised, as first lieutenant,



the work of the men and the internal economy of the ship. The expedition's meteorological observations, subsequently corrected, reduced and published by the Royal Society as part of the scientific results, were a valuable contribution to Antarctic meteorology. Royds

later became a Director of Physical Training and Sports in the Royal Navy and Commodore of the Royal Navy Barracks at Devonport and a Rear-Admiral in 1926, when he retired from the Navy to become Deputy Commissioner of Metropolitan Police, a post which he held until his death in 1931 from a sudden heart attack at the Savoy Hotel during the rehearsal of a ball for a well-known charity. Knighted 1929. Promoted Vice-Admiral, retired, in 1930. During the *Discovery* expedition Dr. Koettlitz removed a cyst on Royds' cheek, said to be the first Antarctic surgical operation. Said Wilson: "Charles is one of the tidiest and most methodical men in the ship."

REGINALD W. SKELTON. *Chief Engineer, RN*

Born 1872 at Long Sutton, Lincolnshire. Nicknamed "Skellie". Joined Royal Navy 1887. Served in H.M.S. *Centurion* in China, 1894-7, and in H.M.S. *Majestic*, Channel Squadron, 1899-1900. Supervised the construction of the *Discovery* at Dundee. Also acted as photographer, in charge of dark room and negatives, during the expedition. He married a New Zealand lady soon after his return from Antarctica. He served in the Submarine Service from 1906-12, and from 1917-18. In the interval



he served in H.M.S. *Superb* and in H.M.S. *Agincourt* and took part in The Battle of Jutland, 31 May 1916. He continued in the Royal Navy after the War, being posted to Archangel, Constantinople, to the Mediterranean Station and to the Atlantic Station. He became Engineer Rear-Admiral in 1923, Engineer

Vice-Admiral in 1928 and Engineer-in-Chief of the Fleet, 1928-32. He retired in 1932 and died on 5 September 1956. ❦

THE DISCOVERY'S SPECIFICATIONS

Quoted by Ann Savours in *The Voyages of the Discovery*, pp. 16-17

ON 29 NOVEMBER 1899, Admiral McClintock, Chairman of the Ship Committee, described the future *Discovery* as follows. This summary of her design is so concise and was so little modified in practice that it is quoted here in full:

The Ship will be 172 feet long, 33 feet extreme beam and will be 1570 tons displacement. She will be built of oak and elm, with an ice casing of green heart. Though somewhat larger, her general lines will be similar to those of *Discovery*. Her bows will be sharp and overhanging, like *Discovery*, and they will be special strengthened for forcing her way through the ice. The thickness of her sides amidships at the water line, will be 25 inches. The stern and counters will be so shaped as to afford protection to the screw and rudder, both of which will be fitted so as to be raised quickly out of the water.

The consumption of coal is approximately, as follows:

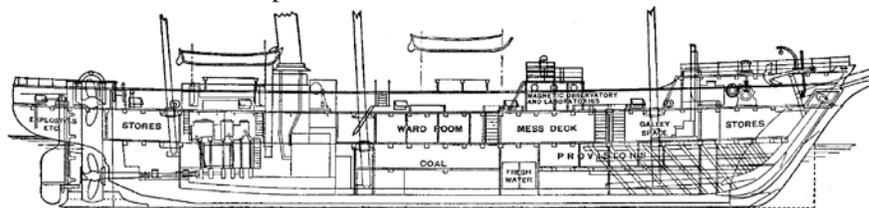
Speed (in knots)	6	7	8
Tons per <i>diem</i>	4 1/2	6 1/2	9
Distance for 240 tons (of coal)	7,700	6,200	5,100

This does not include the amount of coal that will be required for warming, dredging and sounding purposes. It is possible however, that some 20 or 30 tons of coal can be stowed elsewhere in the ship, either on the upper deck, or in unoccupied spaces below. The full power speed of the ship will be about 8 knots, somewhat in excess of the speed of [the old] *Discovery*. In order to fall in with magnetic requirements, the engine and boilers will be situated aft. The horse power will be 450, and the ship will stow, in bunkers, 240 tons of coal. She will be fitted with masts and sails, and barque rigged, so that fuel can be economised while making a voyage, and advantage can be taken of favourable winds, even when navigating in the pack. The Magnetic Observatory, 8 feet by 6 ft. 6 in. will be on the bridge before the mainmast, and no iron work will be permitted

within 30 feet of it. [It was in fact fitted on the upper deck.] For biological work there will be two houses, properly fitted on deck, and a laboratory 10 ft. by 7 ft. forward on the lower deck. There will be an auxiliary engine, and special arrangements for sounding to a depth of 4,000 fathoms, and also for dredging up operations. All other details have been carefully designed for ice navigation, for promoting warmth and dryness below, and for facilitating scientific investigations. The cabin accommodation includes a sitting and sleeping cabin for the captain, one for the navigator with places in it for the chronometers and with facilities for drawings &c. The other cabins for the other executive officers, and one for the engineer, and three for scientific civilians, of whom one, or more, ought to be surgeons, one to be in medical charge of the ship. Extra cabin space can be found for two or more scientific civilians, but only by encroaching on the space now set apart for the health and comfort of the crew.

The Ship Sub-Committee are much indebted to Mr. W. E. Smith for the skill and ability he has devoted to the design and details of the ship, and also to Mr. Marrack for his work connected with the engines and boilers, and the protection of the propeller. They congratulate themselves on the fact that the plans and designs approved are those of a vessel which will be, by far, the best adapted for severe weather and ice navigation, as well as for scientific investigations, that has ever entered the polar regions.

They are of opinion that the total complement of this vessel should not exceed 48 to 50 souls.



SCOTT ON THE DISCOVERY

From *The Voyage of the "Discovery"*, Vol I, pp. 48-54

THE ART OF BUILDING wooden ships is now almost lost to the United Kingdom; probably in twenty or thirty years' time a new 'Discovery' will give more trouble and cost more money than a moderate-sized war-ship. This is natural enough: it is the day of steel, of the puncher and the riveter; the adze and the wood-plane are passing away. It must become increasingly difficult to find the contractors who will undertake to build a wooden ship, or the seasoned wood and the skilled workmen necessary for its construction.

A window was cut out here and a piece of wood from the *Discovery* was pasted on the next page showing through the window.

A portion of the deck from the ship *Discovery*.

The technicalities of the business may still remain in the memories of the older constructors, but have grown vague from disuse, and very few persons have cause to refresh their memories. And so it is all passing away; even the quaint old Scotch foreman, John Smith, who played so important a part in the building of the 'Discovery,' has finished his work and vanished from the scene. It is a strange ending to an industry which a century ago produced those stout wooden walls that were the main defence of the kingdom.

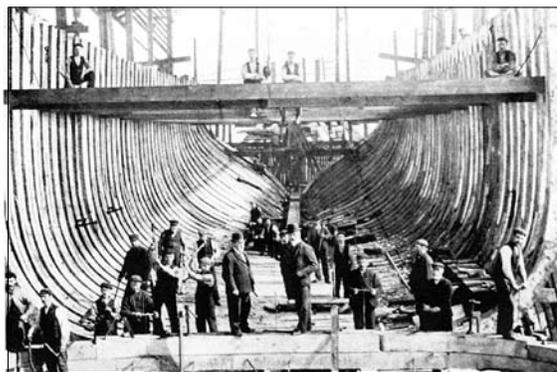
In October 1899, when tenders for the new ship were invited, there were few replies, and only one from a firm which had recent experience of such a task. This was the Dundee Shipbuilding Company, the owners of a small yard on the Tay, which had been better known in the flourishing days of the whale trade as Stevens's Yard. Stevens had been a very well-known character in Dundee, the builder and owner of many a fine whaling ship.

Arrangements were therefore entered into with this

Company to build the new vessel, and in the meanwhile the Committee's architect, Mr. W. E. Smith, had thoroughly overhauled the plans of the old 'Discovery' and drawn up a masterly specification for the new one. In March 1900 the keel of the new vessel was laid, and in a few months the massive oak frames had been raised and the busy scene of construction was in full swing.

I have spoken of this new ship as the 'Discovery,' but it was not until June that her name was selected. Many names came up for discussion, and not a few of these had already done service in the older English expeditions. It was generally considered that the most appropriate plan was to revive some old time-honoured title, and as it was seen that few names carried a greater record than 'Discovery,' that name was chosen. . . .

By consulting the profile drawing of the ship, the reader will get some idea of the internal arrangements, but he will scarcely realise



the extraordinary solidity of the structure. Most people who have voyaged in modern ships know that between them and the sea there has only interposed a steel plate the fraction of an inch in thickness; they may, therefore, be interested to know what the side of the 'Discovery' was like. The frames, which were placed very close together, were eleven inches thick and of solid English oak; inside the frames came the inner lining, a solid planking four inches thick; whilst the outside was covered with two layers of planking, respectively six and five inches thick, so that, in most places, to bore a hole in the

A window was cut out here so that the wood, which was affixed on the "midship section" opposite, would show through.

side one would have a to get through twenty-six inches of solid wood.

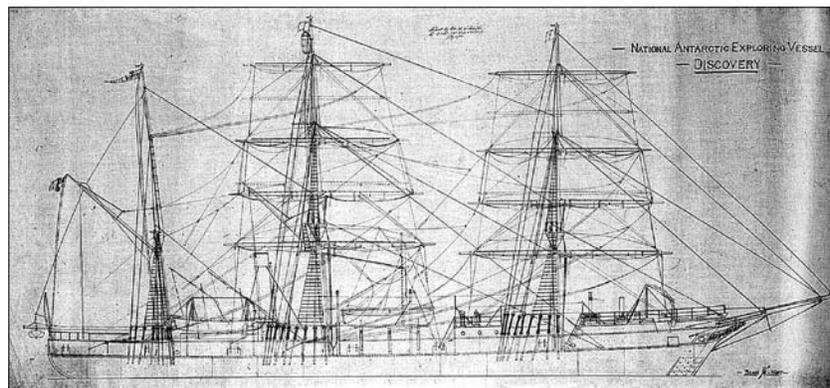
It will give some idea of the complexity of the construction of such a ship to name the various woods that were employed in the side, for in each place the most suitable was chosen. The inner lining was of Riga fir, the frames of English oak, the inner skin, according to its position, of pitch pine, Honduras mahogany, or oak, whilst the outer skin in the same way was of English elm or greenheart. The massive side structure was stiffened and strengthened by three tiers of beams running from side to side, and at intervals with stout transverse wooden bulkheads; the beams in the lower tiers were especially solid, being eleven inches by eleven inches in section, and they were placed at intervals of something less than three feet.

All this went to give the ship a frame capable of resisting immense side strains, but, strong as she was in this respect, the rigid stiffness of the sides was as nothing to that of the bows. Some idea of the fortification of this part can be gathered from the drawing, which

shows the numerous and closely placed girders and struts that went to support the forefoot. Such a network of solid oak stiffeners gave to this portion of the vessel a strength which almost amounted to solidity. It will be seen, too, how the keel at the fore-end of the ship gradually grew thicker till it rose in the enormous mass of solid wood which constituted the stem. No single tree could provide the wood for such a stem, but the several that were employed were cunningly scarfed to provide the equivalent of a solid block; and, in addition to the strong fastenings which held piece to piece, long strengthening bolts were used which ran fore and aft and securely held all together. Some of these bolts, running entirely through wood, were as much as 8 1/2 feet in length.

The bow of the 'Discovery' was, therefore, a part which ran little risk of damage, and a knowledge of its strength was a pleasing possession when we came to ramming the ice-floes. In further preparation for such service the stem itself and the bow for three or four feet on either side were protected with numerous steel plates, so that when we got back to civilisation not a scratch remained to show the many hard knocks which the bow had received.

The shape of the stem was a very important consideration. It will be seen how largely it overhangs, and this was carried to a greater extent than in any former Polar ship. The object with which this was fitted was often very prettily fulfilled during our voyage. Many a time on charging a large ice-floe the stem of the ship glided upwards until the bows were raised two or three feet, then the weight of the ship acting downwards would crack the floe beneath, the bow would drop, and the ship would gradually forge ahead to meet the next obstruction. This is the principle on which the ice is broken by



A DISCOVERY CHRONOLOGY

NATIONAL ANTARCTIC EXPEDITION 1901-04. LEADER: COMMANDER R. F. SCOTT, RN

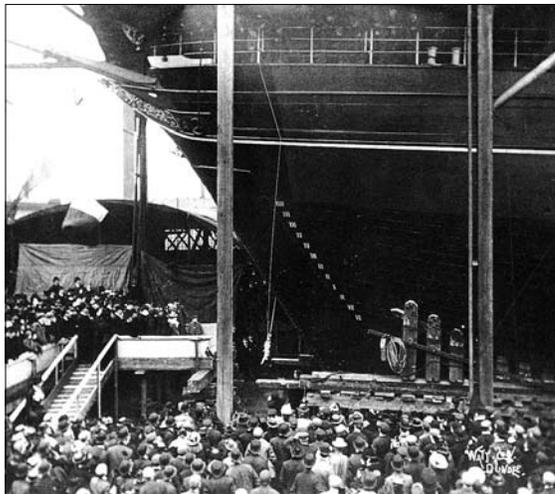
1900

March – Keel laid on the Tay at the old Stephen's (Panmure) Shipyard by the Dundee Shipbuilders Company.



1901

- 21 March – Launched into the waters of the Tay, christened by Lady Markham.
- 5 August – At Cowes Harbour during Cowes Week. Visited by King Edward VII and Queen Alexandra.
- 6 August – Sailed from Cowes via South Trinidad for the Cape, arriving 3 October.
- 24 December – Left Lyttelton, New Zealand, for the Antarctic.



1902

- 3 January – Crossed Antarctic Circle.
- 4 January – Entered the pack-ice of the Ross Sea.
- 8 January – Out into the open sea. First sight of Antarctica.
- 30 January – Sailed along Ross Ice Front and discovered Edward VII Land.

- 9 February – Found Winter Quarters, Ross Island, McMurdo Sound. Hut erected. Ship made ready for wintering.
- 23 June – Midwinter celebrations.
- 2 September – First spring sledge journey (Scott).
- October – Record deposited by Royds and party at Cape Crozier. Skelton discovered Emperor penguin rookery.
- 2 November – Scott, Shackleton and Wilson left on southern journey.
- November – Royds and party re-visited Emperor penguin rookery at Cape Crozier. Egg found.
- 29 November – Armitage and party left on Western Journey. Ascended Ferrar Glacier to reach plateau of Victoria Land.
- 30 December – Southern party reached farthest south latitude 82°16'S.

1903

- 19 January – Western party returned.
- 24 January – Relief ship *Morning* (Captain William Colbeck) arrived McMurdo Sound.
- 3 February – Southern party returned.
- 2 March – *Morning* departed.
- April-August – Second wintering.
- September – Wilson visited Cape Crozier (Emperor penguin rookery).
- 12 October-1 January 1904 – Scott's western sledge journey to inland plateau. Other spring sledging journeys.

1904

- 5 January – Relief ships *Morning* (Captain Colbeck) and *Terra Nova* (Captain H. MacKay) entered McMurdo Sound.
- 14 February – Reached *Discovery*.
- 16 February – *Discovery* at last freed from ice.
- 17 February – Left Winter Quarters. Blown ashore at Hut Point; aground 8 hours.
- 2 March – Sighted Balleny Islands. Sailed over part of 'Wilkes Land'.
- 5 March – Re-crossed Antarctic Circle.
- 2 April – *Discovery*, *Terra Nova*, *Morning* reached Lyttelton, New Zealand.
- 8 June – *Discovery* departed Lyttelton.
- 9 September – Arrived in the Channel.
- 10 September – Arrived Portsmouth.

15 September – Berthed East India Dock, London.

November – Exhibition of watercolours and photographs at Bruton Galleries, London.



7 November – Captain Scott gave lecture on the expedition at the Royal Albert Hall.

1905

January – Bought by the Hudson's Bay Company. Adapted as a merchant vessel. Numerous voyages to and from Hudson Bay until...

1912-15

Laid up in London.

1915-20

Numerous voyages calling at Halifax, New York, Falmouth, Swansea, Nantes, Bordeaux, Brest, Archangel, Dundee, Le Havre, Plymouth, Cardiff, Bristol, Lorient, Boulogne, Plymouth.

Refitted at Devonport and sent south to rescue Shackleton's party marooned on Elephant Island. Departed Plymouth 31 July 1916. Arrived back at Plymouth 29 November 1916.

Numerous voyages calling at Lorient, Pauillac, Bayonne, Rochefort, Nantes, Brent, Rochefort, St-Nazaire, Bordeaux, Brest, Barry, Funchal, Bilbao, Cardiff, Montreal, Charlton Island, St John's, Halifax, Liverpool, Antwerp, London, King's Lynn, Hull, Rotterdam, Dunkirk, Le Havre, Constantinople, Novorossysk, Taganrog roads, Piraeus, Malta.

1922

Hudson's Bay Company granted ship as temporary headquarters to 16th Stepney Sea Scout Troop.

1923

Bought by the Crown Agents for the Colonies for the purpose of 'scientific research in the South Seas'.

1925-27

THE *DISCOVERY* (OCEANOGRAPHIC) EXPEDITION

1929-31

BRITISH, AUSTRALIAN AND NEW ZEALAND ANTARCTIC RESEARCH EXPEDITION (BANZARE)

LEADER: SIR DOUGLAS MAWSON

1931-36

Laid up in London (East India Dock)

1936-37

Discovery used by the Sea Scouts as a training ship and as a hostel for Scouts visiting London. It was moored alongside Thames Embankment in King's Reach.

1939-45

Special Admiralty courses were run on board the *Discovery* for men about to enter the Royal Navy. She was also headquarters of the River Emergency Service.

1946-55

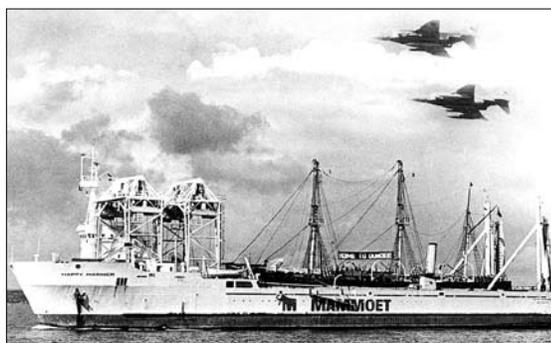
Used again by the Sea Scouts under ownership of Boy Scouts.

1955-79

Transferred to the Admiralty for use by the Royal Navy Reserve and the Royal Naval Auxiliary Service as an additional drill ship, but also used by Sea Scouts.

1979

Handed over to Maritime Trust. Restoration



The *Discovery* returns to her port of birth. begins.

Adapted from Ann Savours, *The Voyages of the Discovery*, pp. 311-19.

EXCERPTS FROM THE "DISCOVERY," PAST & PRESENT

From *The South Polar Times*, Vol. II

HAD THE SOLE aim in selecting a name for the vessel of the National Antarctic Expedition been to choose one that would remind those who sailed in her of the glorious deed that had been achieved in the field of exploration, more especially that of polar exploration, by the intrepid seamen of old, it would have been difficult to have found a more appropriate one than 'Discovery'. The voyages of the several 'Discoverys' have made their mark on the charts of the world for all time.

If for no other reason than the fact that she was the vessel in which the brave Henry Hudson made his last and fatal voyage, the first 'Discovery' would have been famous, but happily she has a brighter claim to memory than that dark incident. . . .

We first find the 'Discovery' mentioned as being the ship employed by the East India Company for a voyage in search of the North-west passage in 1602, under the command of Captain Waymouth. Unfortunately a mutiny brought this voyage to a speedy close.

The next time she sailed it was for another attempt to discover a North-west passage eight years later, commanded by Henry Hudson. After encountering many dangers, the great bay was discovered which now bears Hudson's name. A harbour was found at the south-eastern end of the bay where the 'Discovery' wintered. There was some trouble with the crew during the winter, and three days after leaving winter quarters the crew mutinied, and Hudson, his young son, and a few who remained faithful to him were turned adrift in an open boat and were never after heard of. It is a sad tale and the particulars are too well known to bear repeating here. Suffice it to say that the ship was brought home to England by five of the survivors of the crew after suffering well deserved hardships.

The 'Discovery' again left England in 1612 as second ship in Sir Thomas Button's expedition; her captain was Ingram. The expedition was the first to reach the western side of Hudson's Bay. Here they wintered. They reached 65°N. the following summer when they commenced their return voyage, discovering Mansel's Island on their way home.

The 'Discovery' was sent out again the following year (1614) under command of a Captain Gibbon or Gibbins, who got as far

as Labrador, wintered in a harbour there and returned the following year having accomplished nothing.

We now come to a brighter page in the history of 'Discovery' I. She not becomes associated with William Baffin, the greatest navigator of his time. We are indebted to him for the accounts of the two last voyages of 'Discovery' I., still in quest of a North-west passage. Apart from the interest they have for us as accounts of the voyages of the 'Discovery', they are very interesting reading. . . .

Thus 'Discovery' I. is associated with two of the greatest navigators the world has ever seen, and the maps will bear witness to her voyages to posterity. It is also worth remembering that, as Hudson and Baffin were the first two Captains to observe for the dip of the magnetic needle, so the 'Discovery' must have been one of the first ships in which that important work was carried out. Baffin says of her last voyage:—"I dare boldly say (without boasting) that more good discoveries hath not in shorter time (to my remembrance) been done since the action was attempted, considering how much ice we have passed, and the difficulties of sayling so neere the pole (upon a traaverse)". . . .

A century later (1719) another 'Discovery' (II.) went on an exploring voyage to Hudson's Bay.

In 1776 the Admiralty fitted out two ships for an expedition of discovery—the 'Resolution' and the 'Discovery'. The command of the Expedition was given to Captain Cook who had 'Resolution' for his ship, and Captain Clerke was appointed 2nd. in command and Captain of the 'Discovery'. The life and work of Captain Cook is well known and needs no recapitulation here, but that of Captain Clerke is not so familiar to us. . . . He had served twice with Captain Cook

previous to his appointment to the 'Discovery'. . . . In July 1778 they reached their farthest north for that year and sighted and named Icy Cape, where the ships were in some danger. . . . They returned south, discovered Hawaii, and in the following February (1799 [*sic*]) Cook was killed and Clerke succeeded to the command of the expedition. . . . The Expedition returned to England in October 1780. . . .

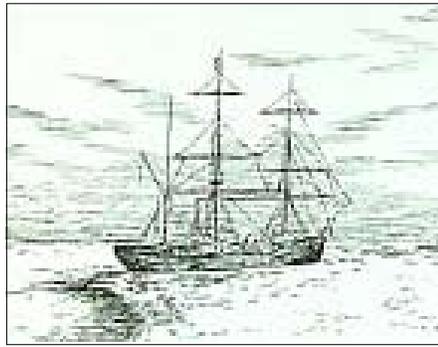
The next 'Discovery' (IV.) was Captain Vancouver's ship in the expedition under his command 1791 to 1795. Amongst other work Captain Vancouver surveyed and proved the insularity of the island now bearing his name. In 1792 the expedition was in Australian and New Zealand waters, and Vancouver had a share in the early charting of the Australian sea-board.

In 1875 the Government decided to fit out an expedition for an attempt to reach the North Pole. Two ships were selected for this purpose – H.M. Ships 'Alert' and 'Discovery'. Captain Nares (now Admiral Sir George Nares) was appointed to the former vessel and command of the Expedition, and Captain Stephenson (now Admiral Sir Hy. Stephenson) to the 'Discovery'. . . .

The Expedition did not succeed in its primary object (to reach the North Pole), owing to ice condition and bad health. The Northern sledge party under the present Admiral A.H. Markham who made the attempt in the summer of 1876, having to travel over a frozen sea which necessitated carrying boats in the event of a break-up of the ice, had exceedingly heavy loads. This entailed relay work from the very commencement of the journey. For the 73 miles made good northwards they travelled no less than 276 miles. The surface, as is generally the case with a frozen sea, was extremely bad. Added to these difficulties scurvy broke out. During the return journey one man died from this disease, and the remainder of the party were all affected – five being carried by their companions who were in but little better condition themselves. That they reached Latitude 83°.20'N. under these circumstances, is a tribute to their indomitable courage and perseverance. But apart from this, very valuable work was done by the Expedition. The coast of Grinnel Land was carefully

surveyed, and the known coast of Greenland extended some miles. Magnetic, Meteorological, and other observations were taken, and our knowledge of the biology of the Arctic Regions increased. As both ships' companies were all more or less affected with scurvy, Capt. Nares deemed it advisable to return to England, and the 'Alert' and 'Discovery' arrived at Portsmouth November 2nd, 1876.

The present 'Discovery' is a steam vessel of 450 tons, barque rigged. Her keel was laid at Dundee on March 7th, 1900, and she was launched by Lady Markham on March 21st the following year. On Monday June 3rd, 1901 she left Dundee for London in charge of Captain Scott. After provisioning etc. in London she went to Cowes, where, on August 5th, His Majesty The King (Patron to the Expedition)



came on board to inspect the ship, accompanied by the Queen Consort. The next day the 'Discovery' weighed anchor and left England's shores on her long voyage to the Antipodes, and Sir Clements Markham saw the Expedition for which he had worked unceasingly for many years, fairly under

way. The realization of his plans must have been very gratifying to him.

From the foregoing it is seen that 'Discovery' VI. has succeeded to a heritage of fame. What memories her name evokes! Hudson, Baffin, Cook, Vancouver, Nares, all have added the lustre of their name to the 'Discovery'. Under these able navigators the voyages of five previous ships of the name have added to our knowledge of the geography of our globe. So it is with 'Discovery' VI. From her deck new land has been sighted, and by the sledge parties sent out from her, new land has been seen and charted and the coast line of Victoria Land extended considerably. The physical sciences too, will benefit by her first voyage. She exhibits also what a stride has been made in scientific research since the first 'Discovery' sailed on her hazardous voyage. There is no space, nor is this the occasion to dwell on this, but one cannot help thinking – what would be Baffin's feelings, were he suddenly brought on board the 'Discovery'? It is easy to imagine with what delight and amazement he would view, for

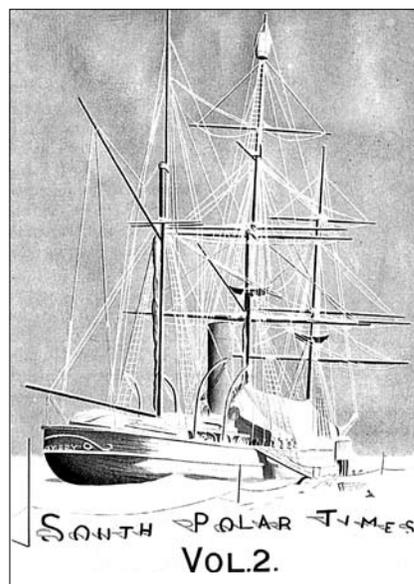
instance, the instruments for observing and recording Magnetic phenomena; the same work which he, one of the earliest pioneers of the science, carried out so conscientiously and well with the imperfect instruments at his disposal on board 'Discovery' I.

One word in conclusion. Is it not a matter of regret that those ships, which from their record of service in battle or exploration, or from their connection with some national hero, are not preserved from the ship-breaker and curiosity-monger? How much more worthy of a great nation is the sight of H.M.S. "Victory" lying at anchor in Portsmouth Harbour, a constant object lesson to all of England's greatness, than that of the "Foudeoyant" being chopped up into tables, chairs and other household furniture, for sale at so much a piece; or Captain Cook's 'Discovery' ending her days as a convict ship. We know from an old print in the Ward-room that 'Discovery' III. was a convict ship at Deptford in 1828. We have an idea, however, that afterwards one of our colonies bought her as a training ship for boys, but are not certain of this. 'Discovery' V. we saw at Portsmouth while we were there

in this ship. She has for some years been a store ship journeying backwards and forwards between the Naval Dockyards, but was, just then, put on the Admiralty List of Ships for Sale.

What will become of 'Discovery' VI.? It is difficult to say, perhaps in these days of renewed interest in Arctic and Antarctic research, she will do several more voyages to polar regions, and, if so, we may expect add fresh laurels to her already renowned name. After? Well, had we the necromancer's crystal ball we might look into the future and see her in the sunset of her days engaged in some useful work as a store ship or coal hulk. This is all we dare hope for her, but without doubt her name will be carried on through many years until the remote period when no more discovery remains to be done. Those who sail in these future 'Discoveries' will no doubt take, as we do, and interest in the voyages of her namesakes, not the least amongst which, we may venture to say, will be the voyages of 'Discovery' VI.

— HISTORICUS.



THE NATIONAL ANTARCTIC EXPEDITION

THE NATIONAL ANTARCTIC EXPEDITION was jointly sponsored by the Royal Geographical Society and the Royal Society. It was the first great land-based expedition to Antarctica and although an attempt at the Pole was among the objectives, geographical exploration and basic science were to be the prime pursuits. A specially designed and constructed ship, the 172-foot sail and steam powered *Discovery*, was built in Dundee, Scotland

(where it may be seen today). Robert Scott was chosen leader, a victory for Sir Clements Markham (the Royal Society wanted the expedition under the command of a scientist). *Discovery* left England in August of 1901 and after stops along the way, reached the Ross Sea in early 1902. Winter Quarters were established at Hut Point on Ross Island. The *Discovery* was the first ship to visit the area since the voyage of Sir James Clark Ross in 1841. A prefabricated hut was erected which still stands as an historic site at the edge of the giant U.S. McMurdo Station. The 40 men, however, lived on board the ship, which was frozen in at the shore, while the hut was used for storage and such things as entertainments, including productions of the “Royal Terror Theatre.” Up to this time the exploration of Antarctica had been limited to the coastal fringes. What lay beyond was entirely a matter of speculation. The first Antarctic aerial ascent was accomplished in a balloon named *Eva* from which Shackleton took the continent’s first aerial photographs. From an elevation of 800 feet Scott saw nothing but snow and ice stretching to the south. So when the Polar Party—Scott, Wilson and Shackleton—set out on the 2nd of November, 1902, they had little idea of what might lie ahead. There was difficulty with the equipment, the dogs, and with the weather, but they continued on and by the 30th of December they were at the furthest south yet attained by man—82° 16’ 33”. The limit had been reached and although the mountains and Polar Plateau were in sight, they turned homeward. They had been plagued by scurvy, Shackleton especially so. He was spitting blood and for awhile had to be carried on a sledge. They made it back to Hut Point, but just barely, on the 3rd of February 1903.

While Scott was on the southern journey, Albert Armitage led a party to explore Victoria Land and the Western Mountains and became the first to walk

on the Polar Plateau and to ascend an Antarctic glacier. Another team went to Cape Crozier to get Emperor penguin eggs, but they were too late, though this would be a prelude to the famous “Worst Journey” on the *Terra Nova* expedition.

The *Discovery* was to leave for home in 1903 but the ice still held her fast. The relief ship *Morning* got to within eight miles. Mail was exchanged, supplies transferred and personnel reduced, Shackleton being one that was headed home. The *Discovery* was going to have to spend another winter at Hut Point.

A year later, in February, two relief ships appeared on the horizon: the *Morning* and the *Terra Nova*. The ice conditions were no better this time and plans were proceeding to abandon the *Discovery* when at the last moment the ice began to break up and the ship was once again afloat. The three ships headed north thus ending man’s longest stay in the Antarctic up to that time.

Over 900 miles of land and 150 miles of ice shelf were explored and a good start had been made along the South Polar Trail. ❄️

—From Stephenson, *Your Hero, My Hero; The Heroic Age of Antarctic Exploration*.



Shackleton, Scott and Wilson set out for the Pole, 2 November 1902.

WHAT WAS HAPPENING BACK THEN IN MAY?

THE *DISCOVERY* was in the Antarctic from early 1902 until early 1904. What was happening in May right around now during those two south polar winters?

“Outside, the snowdrift is so thick that one cannot see a yard in front of one’s face; it is whirling and eddying about the ship in such a manner that were one to lose touch of a guide-rope he would be immediately lost. No one has been outside for more than a few minutes, except the observers, and to-night even they are not going beyond the ship. . . . The tops of the chimney-funnels have come off and gone heaven knows where; the result is a down-draught in the chimneys which at first filled the living-spaces with choking smoke until the fires were put out and skylights closed again, and as we sit in rather chilly comfort below we can hear the wind howling through the rigging and the awning flapping noisily in its wild efforts to escape.

. . . In spite of the din without, the fireless condition within, and some anxiety as to what we shall find missing after the gale, we have had quite an interesting debate in the wardroom on ‘Women’s Rights’; each man was allowed a period of twelve minutes in which to set forth his views, and managed to cram into it as much nonsense as he could think of in that space of time; even the married men felt that it was an occasion on which they could speak with the utmost freedom.”

Friday 2 May 1902.
—Scott, *The Voyage of the ‘Discovery’*,
Vol I, pp. 318-19.

“Tremendous snow drift almost burying the ship. She is a perfect picture of winter now.”

Saturday 3 May 1902.
—William Lashly’s diary
(*Under Scott’s Command*, p. 40).

“Commencing on May 2, and continuing until the 4th, a furious blizzard raged. During the afternoon of the 2nd the weather was gloomy and threatening, with a moderate easterly wind, which increased to a strong gale during the night, and, veering to the south-west, blew with renewed vigour. The thickly falling snow was driven fiercely along by the

tremendous force that impelled it. The cowls of the mess-deck and wardroom funnels were whirled away by one of the screeching squalls that scurried through the *Discovery’s* rigging. Shortly after, another storm-gust carried the head of the windmill away, snapping the thick steel standard as though it was a rotten carrot, and rendering the expensive plant useless for purposes of light in the future A drift 12 feet high was formed to windward of the ship by this blizzard, at a distance of about 10 feet from the ship’s side. The back-draught caused by the wind blowing on the side of the ship made a great hollow alongside, and the *Discovery* herself was simply smothered in snow.

—Armitage, *Two Years in the Antarctic*, p. 97.

“It is so far the worst night that has been experienced. . . . It was a proper blizzard, blinding snow drift and a wind rising to 80 miles an hour from time to time.”

Saturday 3 May 1902

“The storm is still going on.”

Sunday 4 May 1902

“Snow drifting still. . .”

Monday 5 May 1902

—Wilson, *Diary of the ‘Discovery’ Expedition*, p. 139.

“We had fish for breakfast this morning, all hands, fresh fish. They worked out at 1/2 lb. a man before they were cooked. In the evening we had mutton and spinach. This is the beginning of our winter luxuries routine.”

Sunday 3 May 1903

—Wilson, *Diary of the ‘Discovery’ Expedition*, p. 256.

“Spent the whole day bootmaking. . . . After dinner read a bit. . . . Wrote from 12 till 6 a.m. with a meal of tea and buttered toast. . . . It was a perfect night, flat calm and temperatures but little below zero.”

Tuesday 5 May 1903

—Wilson, *Diary of the ‘Discovery’ Expedition*, p. 257.



LIFE IN THE WARDROOM

FOOD & DRINK

FOOD was of constant concern to those on the *Discovery* expedition. While sledging one's life depended on the right type and quantity of food. Back at winter quarters the tedium of inactivity and constant darkness made food a frequent topic of conversation and within the minds of the men, an object of obsessive longing.

THE WEDDELL seal formed our staple meat diet, more especially during the second year. Its flesh is a dark brown colour and coarse-grained. If attended to properly by the cook, thawed gradually, and all fat eliminated, it is very palatable, and readily lends itself to any culinary treatment—like beef, for instance. By itself, without seasoning or sauces, etc., it is somewhat flavourless—something like poor horse-flesh, which I have had the pleasure of eating in the North Polar regions. For about nine months our cook did not appear able to tackle the problem of serving it with any variety; we had fried seal-steak day after day until many of us loathed the sight of it. Subsequently, with a change in the method of cooking it, we all voted Weddell seal real good eating, though I cannot say that I ever went so far as to declare it equal to fresh beef or mutton, as some of our company did.

—Armitage, *Two Years in the Antarctic*, p. 86.

OUR DINNER in the wardroom was no less a success. Fresh mutton, seal, turtle soup, tinned fish, jellies, plum duff, etc., formed a menu that nobody need despise. Mr. Kinsey, of Christchurch, New Zealand had generously given us some magnums of champagne, and port and liqueurs were not wanting.

—Armitage, *Two Years in the Antarctic*, p. 113.

BREAKFAST for both officers and men consisted of porridge, bread and butter, marmalade and jam. During the active life we lived when daylight was still with us there had been also hash or stew or seal liver. Now in more sedentary days only seal liver tempted us to extend the meal. Soup, seal or tinned meat, and jam or fruit tart was the routine dinner varied on feast days by frozen mutton, and in all meals wardroom and mess-deck fared alike. The only difference was in the time at which the meals were taken, the men having dinner at noon, the officers at six in the evening. The single standard in food had been a wise precaution against possible mess-deck griev-

ances, for at times there was more than a little ground for complaint.

—Bernacchi, *Saga of the "Discovery"*, p. 46.

CLARENCE HARE, the Assistant Steward, gives this as a weekly menu in August 1902:

MONDAY

Breakfast—porridge, curry and rice, cold meat, cocoa or coffee.

Dinner—soup, tinned boiled ham, potatoes, turnips, fruit pie.

TUESDAY

Breakfast—porridge, tinned salmon, cocoa or coffee.

Dinner—soup, roast seal, potatoes, peas, ginger pudding.

WEDNESDAY

Breakfast—porridge, minced collops (tinned savory mincemeat), cocoa or coffee.

Dinner—soup, beef pie, potatoes, haricot beans, prunes and rice.

THURSDAY

Breakfast—porridge, sardines on toast, cocoa or coffee.

Dinner—soup, seal steaks, potatoes, carrots, milk pudding.

FRIDAY

Breakfast—porridge, curry and rice, cocoa or coffee.

Dinner—soup, cold tinned meat, potatoes, haricot beans, stewed fruit.

SATURDAY

Breakfast—porridge, rissoles, cocoa or coffee.

Dinner—soup, seal, potatoes, parsnips, roly-poly pudding.

SUNDAY

Breakfast—porridge, cold tongue, tinned salmon, cocoa or coffee.

Dinner—soup, fresh mutton, potatoes, peas, plum pudding.

—Quoted in Yelverton, *Antarctica Unveiled*, p. 154.



On October 31st. Mr. Skelton photographed these first crops grown upon Antarctic soil and the next day (November 1st) a quantity was cut up for the departing Southern Sledge expedition party who (helped by others), took it with their lunch, in sufficient and satisfying quantity.

On November 8th., upon the occasion of the celebration of the birthday of the Patron of the Expedition, His Majesty the King, sandwiches were made for the whole of the Ship's Company, and these appeared to be much appreciated by all.

The onions, radishes, lettuce, and turnips were also sown in the same manner in soil, and fair crops of these also grown and made into salads upon occasion. Without doubt, however, the old favourites mustard and cress are the most profitable for obtaining good crops in polar climes, as they grow vigorously and, given sufficient accommodation, could be grown in large quantities.

SPES.

From *The South Polar Times*, Vol II

LIFE IN THE WARDROOM

CELEBRATIONS

THE 22ND FELL on a Sunday in 1902, so we celebrated it on the following day. The mess-deck was gaily decorated with coloured papers, which were hung in festoons across the messes. Each mess, too, had some special design, besides being adorned with pictures and draped with flags. A large inscription in red letters on a white ground read: 'God bless the New Zealand farmers.' Some of the mutton given to us by them formed the *pièce de résistance* of our mid-winter dinners. Just before they commenced their dinner on the mess-deck, the Captain, accompanied by all the wardroom party, inspected the messes; and we wished the men a jolly good time. The stokers' mess invited us to partake of some excellent ices that they had concocted. The Captain then distributed a box of presents. These, together with the coloured papers, had been sent on board by Mrs. Royds, mother of our First Lieutenant. She had been most kind and thoughtful in getting together a present and card for each individual on board the ship. The simple gifts afforded us more pleasure than, perhaps, she had any idea of when she collected them. Mrs. Wilson, our zoologist's wife, had sent us each a card, too. We left the men to enjoy their good fare, and, to judge by the sounds of revelry that issued from the mess-deck, they did so most thoroughly. Were further evidence required of the satisfaction afforded by their feast, it could be heard by anyone passing through the men's quarters some three hours later, when the only sounds that broke the silence of the ship were the contented snores that serenaded one from all sides. . . .

At the close of dinner the Captain's health, coupled with that of the crew, was drunk, and we

sang 'For he's a jolly good fellow.' The crew mustered at the wardroom door, and gave three cheers for the Captain and officers, receiving yet another ration of grog in return.

After dinner we sang songs, and imbibed punch—brewed by myself—until it was time to turn in, thus ending a very enjoyable day. To me it was a double celebration, as it was my father's birthday. I have no doubt that his thoughts turned to me on that date, most probably with pity, as he remembered that it was Midwinter's Day in the Antarctic. Little did he, or, indeed, any of our friends, imagine what a jolly day it was for us.

—Armitage, *Two Years in the Antarctic*, pp. 112-14.

OUR GREAT WINTER festival was on midwinter day, and like old-time pagans we celebrated with feasting and music the commencement of the return journey of the sun. It was two months since its red disc had disappeared below the northern horizon, and never was pagan jubilation in honour of the returning life-giver more heartfelt than ours.

The long night had not lacked interest. It had brought none of the horrors which might have been feared. But the age-old worship persisted deep in the consciousness of each of us. The mess-deck was particularly gorgeous, with chains and ropes of coloured paper, Japanese lanterns and gaily decorated tables, each with a fanciful ice centrepiece, lighted from within. And the stokers' mess surpassed all in imaginative design, with a finely carved ice head of Neptune. It was the stokers, too, who displayed the most originality in their selection of a special culinary treat, the last thing in the world one would have



Midwinter Day Dinner 1902. In the Wardroom.



... On the Mess-Deck.

thought of in such a land, and when the officers made their rounds, they were regaled with dishes of ice-cream. Then came the distribution of gifts provided by Royds' mother, and an extra tot of rum, before we returned to the wardroom and our own dinner, which ended in an evening of song. Even the dogs caught the infection, and joined with a chorus of wild barking, and the fun continued until the early morning hours, when we all went out into the calm, clear moonlight, to shout a final paean to the returning day.

—Bernacchi, *Saga of the "Discovery"*, p. 55.

JUNE 23.—We kept our mid-winter festival today, as yesterday was Sunday, and the ship has been *en fête*. The mess-deck was gaily decorated with designs in coloured papers and festooned with chains and ropes of the same material, the tables were loaded with plum puddings, mince pies, and cakes, mostly of home manufacture, but none the less "Christmasy" in appearance. It seems that there has been quite a rivalry amongst the messes with respect to their adornment, and the results which have been achieved with little more than brightly coloured papers, a pair of scissors, and a paste pot are really quite astonishing. On each table stands some grotesque figure or fanciful erection of ice, cunningly lighted up with candles from within and sending forth shafts of sparkling light.

At 12.30, when all was ready, I went round in procession with the officers, exchanging greetings for the season and accumulating sweetmeats, cakes, and such dainties, offered by each mess as a tribute of good will, and incidentally an evidence that we possess no inconsiderable amount of confectionery talent. Next came the unpacking of a large box of presents provided by the kindly thought of Mrs. Royds, the mother of our first lieutenant, and the distribution of these and other Christmas gifts sent by friends in the Old Country to gladden our winter season. Everyone was remembered, and with all in high spirits the distribution occupied the time with jest and laughter, until we left the men to enjoy their Christmas fare with an extra tot of grog.

At six we had our dinner in the wardroom, with the table decorated and the display of all our plate. Starting with turtle soup, we passed on to a generous helping of mutton, and from that to plum pudding, mince pies, and jellies, all washed down with an excellent dry champagne. With a largely assorted dessert of crystallised

fruits, almonds and raisins, nuts, &c., came the port and liqueurs, which brought us into good form for the enthusiastic speeches that followed. With such a dinner we agreed that life in the Antarctic Regions was worth living, and those who didn't make speeches felt that they must sing; and starting with "For he's a jolly good fellow," twice repeated, the evening continued with a regular "sing-song," when everyone, regardless of talent, had to contribute something for the common entertainment. One could not help wondering what would have been the feelings of those sympathetic friends who imagined the polar night to be filled with gruesome horror, had they been permitted a glimpse of this scene of revelry.

—Scott, *The Voyage of the "Discovery"*, VOL I, pp. 344-45.

JUNE 23.—Our second midwinter day has come and gone, finding us even more cheerful than the last. We made a great night of it last night; the warrant officers dined aft, and we had soup made from a real turtle sent to us by our kind friend Mr. Kinsey, of Christchurch, and brought over in the last sledge-load from the "Morning." After this came tinned halibut, roast beef with artichokes, devilled wing of skua as savoury, and the last of our special brand of champagne. On ordinary nights we are now reduced to enamelled plates and mugs, but we still hold in reserve some crockery and glass for these special occasions, and it adds to our cheer to see our table well appointed again.

After dinner we felt we must have some novelty, so someone suggested a dance. The table was got out of the way, Royds went to the piano, and the rest of us assembled for a set of lancers, one of the most uproarious in which I have ever indulged. Then came cock-fighting and tugs of war, and altogether we had as festive an evening as we have ever spent.

—Scott, *The Voyage of the "Discovery"*, VOL II, p. 189.



WE IN THE WARDROOM were engaged in weightier matters, preparing debates, for example, on such subjects as "Women's Rights" and other long-dead problems, which occupied the mind of man at the beginning of the century. On these occasions the less one spoke the more one said. There was even one memorable evening when the rival merits of Browning and Tennyson came up for judgment. Shackleton backed Browning while I, more sentimental then, argued for the moving depths of beauty to be found in the verses of the Poet Laureate. Whether by my masterly exposition or because the wardroom generally shared my preference, Tennyson won—although only by one vote.

—Bernacchi, *Saga of the "Discovery"*, pp. 47-48.

DISCUSSIONS were held during the following weeks on such subjects as the following: 'What Meteorological Conditions are likely to Prevail at our Winter-Quarters during the Winter—Settled or Unsettled?' Five of our number considered that the former condition would prevail, and five thought that we should have generally unsettled weather. One of the most amusing debates was that on 'Woman's Rights,' all of us, with the exception of Hodgson, being agreed that the fair sex suffered from disabilities, in comparison with man, that should be remedied; and that they should have, when capable of maintaining them, equal rights with man. 'Our Commercial Supremacy: Are we taking Proper Measures to Maintain it?' drew forth the opinion of the majority that we are certainly not doing

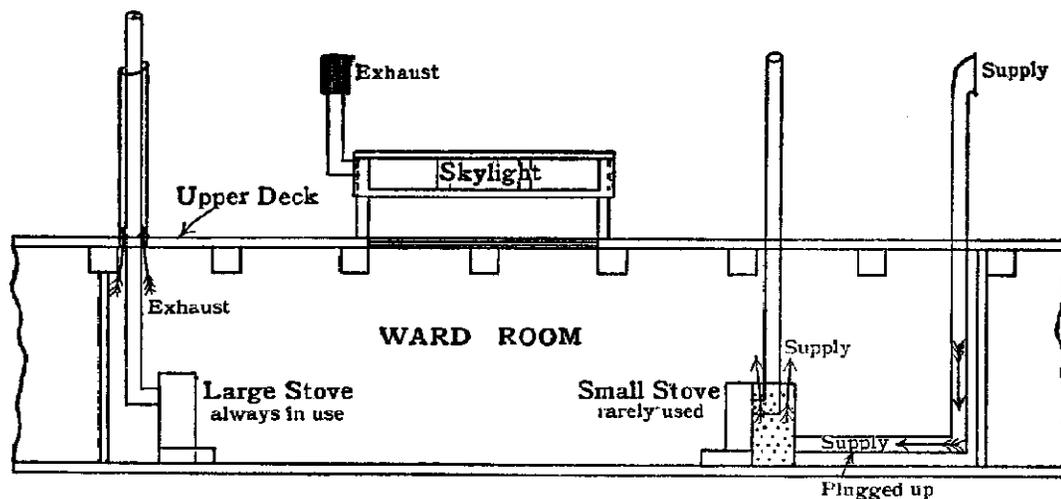
so. 'Would Conscription Benefit the Empire generally?' produced a majority against forced military service. Humorous speeches were made on 'Spiritualism' and 'Sport.' But perhaps the most interesting of all our debates were those entitled 'Seals and their Habits,' Wilson giving us a delightful paper on the subject; 'Is South Victoria Land Part of an Antarctic Continent or not?' and 'What are our Prospects of Successful Exploration in the Discovery, to the East and West, when the Ship is Freed from her Winter-Quarters?'

—Armitage, *Two Years in the Antarctic*, p. 96.

THE FOLLOWING subjects have been thoroughly sifted during the past month at the dinner table of the British National Antarctic Expedition:—

- The capability of Peacocks to stand an English winter.
- The cultivation of Tea and Indiarubber.
- The advisability of saying "Good morning" at breakfast.
- Glacier action in Antarctic Regions.
- Crinolines, and the chance of their revival.
- The word "fact" as a synonym for "probability".
- Schopenhauer's views on Womanhood.
- Terra-cotta Tablets and Lime-juice nodules.
- The bottom of a tumbler.
- The treatment of absurd statements by "smuggindifference".
- The influence of Poetry on certain people, and
- The braying of an ass.

—From *The South Polar Times*, VOL. II.



VENTILATION OF WARDROOM.

LIFE IN THE WARDROOM

MUSIC & ENTERTAINMENT

IT WAS A SINGULAR FACT that we had only one musician amongst the officers of the expedition. One or two could manage to strum a popular antediluvian tune or two, but Royds was the only officer who could perform with pleasure to his companions. On most evenings he would delight us with his playing, and no doubt, as was the case with myself, each of our small number would find his thoughts ‘homeward-bound’ as some well-known air reminded him of his dear ones in the Old Country. Of course we could all manipulate the pianola with more or less success. It was a great source of entertainment. Royds, naturally, was the best performer, but there were others of us who imagined that we possessed no mean skill, and who would sit at the instrument for an hour or two rattling off the finest compositions one after another in the most brilliant style. Eventually, some months before the *Discovery* was released, the pianola

broke down, after thoroughly proving what a great amount of work it was capable of.

—Armitage, *Two Years in the Antarctic*, pp. 100-01.

THE CONCERT programme of 1st May is typical of the artistic standard of our entertainment.

Lantern slides showing the building, launching, and sailing of *Discovery*.

- Song* The Old Flag.....Mr. A. Pillbeam.
 “ Annie Laurie.....Mr. Allan.
 “ Where Grows the
 Sweetest Flower.....Mr. Duncan.
 “ The Cobbler.....Mr. Page.[see below]
 “ Old and New.....Mr. Bernacchi.
 “ Vicar of BrayMr. Wild.
 “ McPherson’s Feud.....Mr. Clarke.

GOD SAVE THE KING

What we lacked in artistic merit, we made up in enthusiasm.

—Bernacchi, *Saga of the “Discovery”*, p. 48.

THE COBBLER—A SONG SUNG IN THE WARDROOM

Oh, me name is Dick Darby, I’m a cobbler,
 I served me time at old camp.
 Some call me an old agitator
 But now I’m resolved to repent.

Chorus

With me ingtwing of an ingthing of an idoh
 With me ingtwing of an ingthing of an iday
 With me roobooboo roobooboo randy,
 And me lab stone keeps beating away.

Now, my father was hung for sheep stealing,
 My mother was burned for a witch,
 My sister’s a dandy housekeeper,
 And I’m a mechanical switch.

Chorus

Ah, it’s forty long years I have travelled,
 All by the contents of my pack;
 Me hammers, me awls and me pinchers,
 I carry them all on my back.

Chorus

Oh, my wife she is humpy, she’s lumpy,
 My wife she’s the devil, she’s black;

And no matter what I may do with her,
 Her tongue it goes clickety-clack.

Chorus

It was early one fine summer’s morning,
 A little before it was day;
 I dipped her three times in the river
 And carelessly bade her “Good day!”

Chorus



LIFE IN THE WARDROOM

THE SOUTH POLAR TIMES

AT A MEETING held in the wardroom, it was decided to bring out a monthly paper something like a London magazine. Each of us wrote on a piece of paper what we thought the best title for this Southern publication. *The South Polar Times* was the one chosen. Shackleton was appointed editor, and Wilson principal artist. It was to be published on the 1st of each month; and every member of the ship's company was invited to contribute towards making it the most amusing, instructive, up-to-date journal, with *the* largest circulation of any periodical within the Antarctic Circle. It was to combine all the best qualities of all the penny and halfpenny London dailies, together with those of the superior comic papers, as well as of the fourpenny-halfpenny and half-crown monthly magazines. Notwithstanding this super-excellence, *The South Polar Times* was to be issued free to all the population of our small colony, the cost of production being more than covered by the grateful feelings of the recipients, to say nothing of the advertisers. Needless to say that a rival magazine which was brought out, named *The Blizzard*, whose contents consisted of poetical effusions rejected by *The South Polar Times*, did not survive the first number. On most days during the first month of the winter the clicking of the typewriter could be heard in Shackleton's cabin as he busily 'set up' the paper; and frequently a shy and conscious-looking blue-jacket would enter the editor's sanctum to ask that worthy man's advice. A carved box was placed outside the office for the receipt of contributions, but would-be authors much preferred a personal audience; so our editor, in self-defence, removed his office fittings to a storeroom in the bowels of the ship, where the wicked ceased from troubling, and his poetical nerves were at rest.

—Armitage, *Two Years in the Antarctic*, p. 88.

APRIL 23 was a notable day, for it marked the disappearance of the sun, a total eclipse of the moon, and the debut of *The South Polar Times*.

—Armitage, *Two Years in the Antarctic*, p. 94.

THE FIRST NUMBER of *The South Polar Times* was voted a great success, the illustrations by Wilson

being admired very much indeed, and the reading matter well edited.

—Armitage, *Two Years in the Antarctic*, p. 95.

THE *South Polar Times*, a monthly journal, was another wardroom effort, though many fine and red-blooded contributions came from the lower deck. Ernest Shackleton showed an especial aptitude for Kipling-esque verse. Under the modest nom-de-plume of "Nemo" he gave us rolling sonorous rhythms. One of his contributions was "To the Great Barrier":

Mother of mighty icebergs, these Kings of the
Southern Seas,
Mystery, yet unfathomed, though we've paid in full
our fees,
Eyes strained by ceaseless watching, when the low
grey fog doth screen
Your walls from our aching vision, and the great
grim giants you wear
Away from your broad white bosom, where for
aeons untold is laid
Each yearly tribute of fallen snows, that this
wonderful plain has made.
We have felt, more than seen, the danger close ahead
of our long jib boom,
But a turn of the icy wheel has made for us more sea
room.
We have sailed from your farthest West, that is
bounded by fire and snow,
We have pierced to your farthest East, till stopped by
the hard-set floe,
We have steamed by your wave-worn caverns; dim,
blue, mysterious halls.
We have risen above your surface, we have sounded
along your walls.
And above that rolling surface we have strained our
eyes to see,
But league upon league of whiteness was all that
there seemed to be.
Ah, what is the secret you're keeping, to the
Southward beyond our ken?
This year shall your icy fastness resound with the
voices of men?
Shall we learn that you come from the mountains?
Shall we call you a frozen sea?
Shall we sail to the Northward and leave you, still a
Secret forever to be?

The screen of anonymity encouraged versifying, and another contributor calling himself “Fitz-Clarence”—in private life Lieutenant Michael Barne—heralded returning day:

There steals upon us day by day a change;
Stealthily creeping o’er the Antarctic world,
Three months of night in seeming endless range
Into a realm of twilight have unfurled.

Night’s shadowy form, yet bending darkly o’er,
Her wings, erstwhile outspread, begins to fold,
And wakening Day proclaims his reign once more
Casting before him beam on beam of gold.

Now fades the silver crescent to the view,
Isis, the goddess of our night is spurned;
Her beauty faded into opal hue,
Her glory overcome, to dullness turned.

Yon distant Western mountains’ roseate sheen
Seems touched with brush of painter, great,
 unknown;
Above them Venus hangs, pale beauty’s queen,
As though in rapture drawn to Earthly throne.

Another less poetic outburst by the same author dealt with the eternal round of meteorological and magnetic observations:

“An Observation! what is that?” I think I hear you say,
“A scientific function that is practised every day?”
Not only every day, I fear, far oftener than that,
A useless entertainment, and it fairly knocks me flat,
To ascertain the object of this idiotic game
Of taking observations, is my everlasting aim.
To be aroused from slumber at the deadest of the night,
To take an observation, gives us all a morbid blight;
How in the name of all that’s blank, can temperatures down here
Concern those scientific men at home, from year to year?
To us alone they matter, for it’s cold enough, alas!
To freeze the tail and fingers off a monkey made of brass.

We even had a sports page, and our correspondent on the lower deck reported the exciting progress of sporting events there in the style of a professional cricket observer:

The first of what has proved an interesting contest of skill occurred on the evening of 8th May, when Mr. H. Blissett met Mr. W. Peters in an exciting game of Shove ‘Apenny. The final score was three to nil in favour of Mr. Blissett. Mr. Peters, however, contested every game closely and it was not until the final point was scored that the result was at all certain.

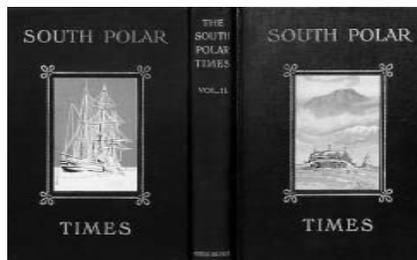
On Friday Mr. Heald played Mr. Wild, and by some phenomenal play in the first game, managed to score amid loud and ringing applause. Here, however, his effort ceased to gain the required chinks, and Mr. Wild, whose play had been very steady, soon forged ahead and playing a strong finish, won handily; score, three games to one.

The games had to be postponed on account of darkness On Monday, the moon came out early and the play was resumed

There were coloured caricatures of the officers on the lines of the then famous “Spy” depicting all the eccentric and peculiar traits of the victim, extremely popular with all—excepting the victim; coats-of-arms, too, were assigned to each, combining the fertile ideas of the wardroom but artistically drawn by Wilson.

But the *South Polar Times* was designed to be instructive as well as amusing, and articles by the scientific staff dealt lengthily with such subjects as Polar Plant Life, Antarctic Seals, Geology of the Antarctic, Terrestrial Magnetism, The Mariner’s Compass. One copy only was published, typed out by Chief Steward Ford, with spaces left on almost every page for Wilson’s illustrations. On the day of publication it was ceremoniously handed to Captain Scott, and after making the rounds of the wardroom passed on to the mess-deck, and was read and re-read until it was almost worn out.

—Bernacchi, *Saga of the “Discovery”*, pp. 48-51.



ANTARCTICA

LEAVES FROM A DIARY KEPT ON BOARD AN EXPLORING VESSEL.

by

C. REGINALD FORD, F. R. G. S.

Member of the National Antarctic Expedition, 1901-4.

ANTARCTICA . . . Ice has been sighted at last, and great is the excitement on board. We have reached the outer edge of pack ice, and to most of us it is a novel sight. Only a few small pieces go streaming past as yet, but they are the advance guards of the army of the Southern Ice King, whose fastnesses we are to invade, and are an earnest of the sterner foes ahead. . . . Soon after meeting with the stream ice yesterday we reached the main body of the pack, and are now in the thick of it. It is a wonderful sight, and one so beautiful, so strange, and so totally unlike anything we have ever

that it is difficult for many of us to go below and leave it. I have just mounted the rigging to gain a better view. Stretching away to the horizon as far as the eye can see is one vast field of glistening white rising and falling in gentle undulations in obedience to the long steady swell of the ocean. The glare is intense, and yet it is not due to sunshine, for the sky is covered with a leaden mass of clouds. Up aloft a better view is obtained of the narrow lanes of water between the floes, through which we have to thread our way. Our path to the south is very tortuous. As we force our way past the ice it makes a grinding, crushing noise, which occasionally drowns the quieter hum caused by the constant movement up and down of the whole body. The ship appears to be endowed with life as she pushes her way past the obstructing floes. Sometimes she meets a floe squarely, rises out of the water, crushes it with her own weight, and pursues her path slowly but proudly to the South, as if there was no such thing as pack ice. . . . The pack ice is the ice which is formed by the freezing over of the sheltered seas and bays in the winter months. In the summer it breaks up and drifts north, where it forms a belt of varying width around the whole of the Antarctic area.

* * * *

. . . On Saturday evening the ship was followed during a heavy snowstorm by an immense flock of birds, principally Antarctic and snow petrels. They remained with us for about an hour or an hour and a half. We have not seen

such a large number together since we have been in the ship. . . . We are having a succession of strong head winds. On Saturday we only made good fifty-five miles, and yesterday, even less, having made only thirty-two miles to the South. Weather appears more threatening, heavy gloomy clouds have shut out the land, and the glass is falling. We are evidently in for some bad weather. . . . Have been forced to take shelter under the lee of Coulman Island since yesterday. A violent gale is blowing, and we are in a dangerous position. . . . The gale has increased in fury, and we are finding it difficult to keep our ground. The wind is coming down from the heights with terrific force, and we are being slowly driven from our shelter. Our anemometer has recorded the wind's speed as ninety miles an hour. The gale bears down with it whirlwinds of blinding snow, which smothers our masts and yards and rigging, and drifts in great heaps on our decks. Volumes of spray are hurled on board, only to freeze as they fall. . . . Have just had a most unpleasant experience—the danger seems increasing. The ship was driven down amongst some bergs, and in endeavouring to clear one we fouled another. Fortunately it was only a small one, and we struck it a glancing blow. It brought us up with a shock, and sent us staggering backwards, happily clear of the other berg. . . . We have spent an anxious night, but the weather is now moderating, and we are congratulating ourselves that in our first contest with the furies of the Antarctic we are the victors. . . .

* * * *

The ice seems alive with Adelie penguins to-day, every floe having its quota of these strange animals. As the ship approaches they stare at it intently, evidently not knowing what to make of such a strange and gigantic animal. When the ship gets too near a floe the penguins rush off helter skelter into the water. To watch them is a source of continual pleasure, and their antics cause much hearty laughter—their behaviour is so very droll. Some march along in groups, in a most sedate manner. As they go along upright on their legs they look for all the world like men in miniature. Sometimes they toboggan along on their bellies, propelling themselves with a quick movement of the feet and flippers. In taking to the water they sometimes dive in head and sometimes feet first. In the water—as I was able to see to-day for the first time owing to the clearness of the water in Robertson Bay—their speed is almost incredible. . . .

I landed at Cape Adare this evening. It is at this spot that the Borchgrevink Expedition wintered a year or two back. There is a large rookery of Adelie penguins here. The shore literally swarms with them—there must be many thousands. And not content with occupying the beach we saw hundreds perched up the cliffs at great heights, and in almost inaccessible positions. As they are so unsuited for climbing, to gain these heights must be arduous work for them, and it is difficult to imagine why they choose to do so. There is no enemy from which height will save them. Can it be the survival of an old habit dating back to the days of their ancestors, who indulged in flight? They have a striking appearance. In height they run up to about thirty inches. Their heads and backs are of black, and they also have a black ring round the throat, which joins the black of the head. The bright little eye is set in the centre of a perfectly white ring, which helps to give the Adelie penguin its characteristic appearance. The bill is short and straight. The breast is glossy white. The young bird is furnished with a coat of brown down. There are numbers of young at the rookery, standing together in small groups, with four or five adult birds doing sentry-go on the outside while the remainder of the parents are away in the pack seeking food. This they bring to the young in their mouths, and the favoured youngster—who is always the strongest one—pops his head right inside its parent's mouth for its food. The large number of dead penguins here testify to the enormous mortality and the

sad struggle for existence which weeds out all but the strongest. The courage of these penguins is remarkable. If we interfered with one he would attack us boldly—rushing at us, flapping his fins and striking our legs with his beak. If knocked down, he does not run away, but as soon as he regains his feet, he rushes at his antagonist again, despite the fact that the latter is many times as large as himself. Their behaviour altogether wins our interest and admiration. . . .

* * * *

. . . . We have passed a large number of icebergs to-day. They are truly magnificent objects, and it is very difficult for me to find words to adequately describe them. The majority were of the typical Antarctic shape, having flat tops and regular perpendicular sides. Most of them were under a quarter of a mile in length, and showed not more than 100 feet above the surface of the water, but two or three were much larger—one being seven miles long, and having a height of not less than 200 feet. Some of them were much worn and were evidently of great age, while some had apparently only been recently separated from the parent mass. A few of the former had their sides carved out by the action of the water into the most beautiful caves, to which entrance was gained through numerous arches of exquisite design. These arches glistened in the sunlight with the most beautiful and delicate iridescent hues, whilst the interiors of the eaves displayed rich shades of azure and violet. Some bergs had been overturned, and now presented their former under surface to view, all worn into fantastic shapes which imagination fashioned into strange likenesses of castle and pyramid, tower and steeple. Very late in the evening the sun shone redly through the haze, and the scene was very wild, and seemed to be unreal, to belong to another world. The icebergs appeared to have been painted by an invisible hand in wonderful tints of crimson and purple and gold, and presented a pageant of extraordinary splendour.

* * * *

. . . . We are still passing along the Great Ice Barrier. It was difficult at first to grasp its magnitude. I must confess to some little disappointment. I had expected to find it higher. But as we sail along its northern face its true grandeur and magnificence appeal to me more and more. Also something of its mystery enforces itself on my imagination. The greatest height we

have found is less than 300 feet, and this was exceptional. The average height is much less. But what uncounted billions of tons of ice this wonderful formation must contain, measuring as it does several hundreds of miles in length and breadth. The height rises and falls. It is now 250 feet, now only 50, then 100, and again up to 250 feet. The Barrier is occasionally very broken in outline—it is not so regular as I had expected from the descriptions and pictures in the books of our predecessors in these waters.

. . . . About 12.30 a.m. we tried to pass between a large berg and the Barrier, but after sailing several miles, found that the berg was connected to the Barrier at the end, and we had to retrace our steps. I wonder what would have happened had a southerly gale sprung up suddenly? The berg and the Barrier would have made an excellent pair of nut-crackers, with us for the nut! The Barrier face is in places much worn. There are several whales and many bergs about. . . . Most of the icebergs which we have met are blocks which have become detached from the face of the Barrier by the action of the sea. Seeing the great length of the Barrier, there is no reason to assign small limits to the *length* of the bergs, but seeing that we have found the greatest height to be rather less than 300 feet, the gigantic bergs so often reported as reaching heights of 1000 and 1500 feet may be ruled out of court. . .

* * * *

The temperature has fallen considerably, and new ice is forming on the surface of the water. To render our position still more unpleasant, a dense mist has fallen on us, obscuring everything. Two days have passed during which we have been sailing in an unknown sea, shrouded in fog, and surrounded on all sides by snow and ice. The mist brings with it a sense of dread and peril—the birds vanish, and the silence becomes more noticeable—the cold seems to grow in intensity. The ice, which had been glistening in the light of the powerful sun, becomes cheerless and full of hidden dangers. The fog crystallises on masts and yards and all the net work of ropes, and converts the ship into a creature of the mist itself. The speed of the ship is necessarily reduced, and she appears to be reluctant to proceed, afraid to thrust her blunt bows into the greyness beyond. She seems to share the uneasiness of the anxious watchers on the

bridge and fore-castle head. These peer intently into the gloom, every eye and ear is alert, and heads are craned forward, for mere inches are now important. This sort of thing goes on for hours, until the suspense becomes almost unbearable. Then suddenly sharp ears catch the sound of the sullen roar as the icy sea dashes furiously against the cliffs of an iceberg. It is impossible to be sure of the direction of the sound—it may come from any point. The ship is kept fast moving, for it is more dangerous to stop than to go on; the watchers increase their vigilance, and if anyone has any remark to make it is made, almost unconsciously, in a whisper. The crew are at their stations for working the sails if it is necessary. Suddenly a hoarse shout breaks the silence—the berg is sighted. The obscure lines of a grey monster loom up out of the fog, possibly right across the vessel's path. A sharp order from the captain on the bridge—round goes the helm, and all hands work with fierce energy shifting the yards. A few minutes, which seem hours, of breathless suspense pass by. "Shall we clear it?" is the question in the minds of all on board. The ship begins to gather way on her new course, and all give a sigh of relief as she makes away from the towering walls of a vast berg. But clearing one berg may only bring you inconveniently close to another, and so the manœuvre is repeated. Many a time is the sound of breaking surf or groaning ice heard, while in vain the keen eyes of the watchers seek to pierce the impalpable grey cloud. All eyes and ears are strained to discover the whereabouts of the dreaded berg, which perhaps we never see, but which is, nevertheless, a potent danger. . . .

* * * *

We are anchored in a small bay, which has been selected as our winter quarters. Preparations for the winter are being hurriedly pushed forward. Huts for magnetic and other observations are being erected, the boats are being landed, etc. . . . At last the ice has formed solidly round us, and we are safely frozen in for the winter. . . .

The sun now performs his daily journey low down in the sky, and our surroundings are rendered unutterably beautiful by sunsets which last for hours. To-night the rugged peaks of the Western hills, tipped with ruby flame, seem to swim in a rosy vapour, while the ice-floe is one vast rose-coloured field with violet shadows. . . .

* * * *

Yesterday we celebrated our mid-winter day. We kept it as a sort of Christmas. A few luxuries, such as plum pudding and cakes, were produced from the depths of the hold, and we had quite a jollification. Everybody appears so well and happy, and it is difficult to believe that we have spent two months without seeing the sun. The sun set on April 23rd, and will not rise again until August 23rd, that is, we are in the middle of a night which is four months long. Truly this is a strange land! Every twenty-four hours is alike in its darkness and sombre silence. The time passes slowly, but I think none of us feel time hanging heavily on our hands. There is plenty of work and amusement for everyone. We have a regular routine of work, which goes on just as if the sun rose and set every day. . . .

. . . . The temperature is very low, being constantly well below zero Fahrenheit. To-day the minimum thermometer registered -47° F., viz., 79 degrees of frost. These low temperatures are not bad when there is no wind, which unfortunately is very rarely the case, but the slightest breeze makes a minus temperature hard to bear, and we have to be very carefully clothed before venturing out. Frost bites are fairly common amongst us, but none serious yet. Perhaps the worst discomfort we experience on board the ship due to the low temperature, is the damp. The difference in the temperature outside and inside the ship causes much condensation, and as a consequence the deck overhead and the ship's side in our living quarters are constantly dripping with moisture. The moisture running down the sides freezes, until the side is covered with a sheet of ice which drips continually as if it was thawing. We have constant work to keep the sides clear of moisture and ice. Those of us who sleep in bunks have covered the ship's side near them with baize to try and stop the condensation which wets our bedding through. Coal sacks have been nailed to the outside of the ship, hoping that they may in some measure prevent cold striking through. In the Issue Room, where the food stores for ready use are kept, which is only three or four yards from the galley fire, there is more condensation than in most parts of the ship. The drips seem to freeze so rapidly that a shelf along the ship's side soon has to support a great block of ice. If it is left for a fortnight there is sufficient ice there to require a couple of hours' work to chip away. And this not more than twelve feet from the largest fire in

the ship! The tins of meat in the locker nearest the galley—not more than four feet from the stove—are frozen so hard that they have to be issued to the cook the night previous to use to enable him to get them thawed properly for the morning's meal. . . .

* * * *

. . . . A blizzard has been blowing for two days and nights, and seems likely to continue. We can do nothing but remain on board until it blows itself out. The roar made by the wind is terrific. It goes howling and shrieking through the rigging in a really frightful manner. It seems almost impossible that any masts can stand such treatment. No one ventures outside unless they are actually compelled to do so, and then they have to be completely clothed from head to foot, just as if they were going out for a month. But observations have to be carried on despite the weather, and this duty is not shirked by those responsible. Life lines have been rigged up from the ship to the observation screen and huts, and the observers go along the line hand over hand, frequently having to stop and hang on by both hands to avoid being blown away. To be out in a blizzard is really a trying experience. You try and turn your back to the wind, but it is hopeless, it seems to surround you. The snow doesn't fall in flakes as in an ordinary snow-storm at home, but is driven by the wind into hard fine particles like sand, and this icy sand attacks you everywhere. The particles force their way into your nostrils and your eyes, fasten to your eyelashes, and then freeze, so that before you can open your eyes you must first rub off the ice. Anyone who has tried to do this with a fur mit will appreciate the discomfort of it—to use a mild expression. The unexposed portion of your face is soon covered with a mask of ice. To see a yard ahead is absolutely impossible—you can only struggle on along the life line. Sometimes these blizzards last two days, but often three. We have a goodly number of them, but not more than two in any one week as a rule. . . .

* * * *

. . . . To-night is perfectly glorious. The moon is shining brightly, and everything looks so strangely beautiful and almost unreal. The ship, after the blizzard, is shrouded in snow, her masts and yards, and the labyrinth of ropes are outlined in glistening white. She appears something like I imagine a phantom ship must appear, indeed she

does seem as if she were only a filament of the imagination, to vanish presently. Mounts Erebus and Terror look magnificent in the silvery light. The former has a plume of smoke trailing away from its crater. The majestic hills of the western range rear their snow-covered crests far into the deep blue vault of the sky, their dark cliffs stand out sharply against their slopes of white. The barrier stretches away to the South—a vast plain of ice bounded only by the horizon. But most wonderful and most eerie of all is the perfect silence which is almost oppressive in its completeness. I know of nothing to which it can be compared. The open ocean on a calm day in tropical climes is the nearest approach to it that I am acquainted with, but the Antarctic silence transcends the silence of the most silent sea. There is not the cry of a bird, not the lap of a wave, not the murmur of the swell, nothing but a deathlike and fathomless quiet. It is almost overwhelming. No written description can ever convey the reality to the imagination of one who has not experienced it. . . .

* * * *

. . . . Another beautiful night. Our walk over the frozen sea to-night was rendered interesting by a display of the aurora australis—that wonderful fleeting phenomenon which it is impossible to describe. It was a picture which the invisible artist painted and repainted so rapidly that the mind was unable to retain any distinct impression of any feature of it. Delicately tinted curtains, sharply defined arcs, clouds and shafts of light, came and vanished, and came again in such rapid succession that one could only stand and watch the fascinating spectacle in bewildered admiration. . . .

* * * *

The sledge party is back from Cape Crozier, and the doctor and his companions have gleaned some interesting facts in the life history of the Emperor penguins from the study of those in the rookery there. These are the largest and handsomest of the penguin family. They stand nearly four feet high, and weigh up to ninety pounds. Around the neck is a band of rich orange, which shades into lemon yellow, and then white on the breast. The bill is long and slender, and is brightened by a strip of colour. They are not in the least afraid of men, and when they meet a human intruder betray the same curiosity as do their smaller cousins, the Adelie

penguins, although in a more dignified manner. They are indeed dignity personified. The most remarkable fact about these birds is, however, that they choose the coldest and darkest part of the year to lay their eggs and hatch out their young. The lowest temperature yet recorded at the ship is minus 68° F., viz., 100 degrees of frost, and at Cape Crozier the temperature is usually lower than at the ship. Hence these strange animals incubate the eggs possibly in lower temperatures even than 100 degrees below freezing point. The Emperors have no nests, but the parent (either father or mother) rests the egg on its feet where it lies covered with a lappet of skin which hangs from the abdomen. The period of incubation is about six weeks, and when hatched out the young chick is nursed in the same manner as the egg. What a marvellous fact this is—unparalleled I should imagine in the whole story of animal life. When the young one is hungry it just pops its head out of its hiding place and acquaints the parent of the fact. The young is clothed in steel-grey down. As with the Adelie penguins, there is a very high rate of mortality amongst the young. Strange to say much of the mortality in the case of the Emperor is due to the excessive maternal (or paternal) instinct which prompts these birds to fight for the possession of a young one to nurse, during which fights the youngster either dies of cold or is pulled to pieces. Sometimes Emperors are found nursing dead chicks so strong is the maternal craving. When sleeping, the Emperor is seen with his bill tucked under his fin—an interesting survival of a habit acquired uncounted years back in his life history when he had a feather covered wing under which he could shelter his head. . . .

* * * *

. . . . I walked to Seal Bay to-day to take some more photographs of the seals. There is a large number of Weddell seals there and I was able to secure some interesting snapshots. The Weddell seal is a splendid animal, measuring some ten feet in length, and having a handsomely dappled coat, which is darkest on the back. The black or dark grey of the back merges imperceptibly into the creamy white of the breast. They have such human eyes and seem so trustful that the necessity which compels us to kill them is hateful to us. They lie about the floe everywhere, basking in the sunshine, some on their backs and some on their sides or bellies.

We can pass in and out amongst them without their displaying any sign of fear. If we give them a dig with our ski-stick they roll over away from us, looking at us with an expression of aggrieved surprise and wonder, but take no further notice unless the interference is persisted in, when they will make off in a lumbering way, which is really most comical, occasionally glaring back to see if the enemy is still in pursuit. I photographed a newly born seal to-day. It measured over four feet in length. The baby wore a rather sad expression, as if it realised that it was born into a cold and unsympathetic world. It had a black and yellow-grey woolly coat—the head was quite unlike the head of the adult seal. We see nothing of the other species of Antarctic seals here. They are evidently confined to the pack. But even there we saw only a few of them. The Weddell seals outnumber all the others. We owe a good deal to our friend the Weddell—we have lived on him for some months with occasional changes to Skua Gulls. . . .

* * * *

To-day a final charge of guncotton released the ship from her icy prison, and she is again afloat after over two years' confinement. For the last forty-eight hours we have been working without cessation preparing for sea. . . .

The last of our familiar landmarks has just faded on the southern horizon. We are all ready to return to civilization, and none more than I, and yet I cannot but regret that I shall never see these wonderful regions again. While gazing to the south from our poop this evening I gave expression to this feeling of regret to our senior Surgeon. But he said, "You may see them again, and you probably will." I wonder if I shall? The Antarctic has its dark side, but it has a bright and beautiful, ay, and fascinating side, too. ♣

Printed by Whitcombe and Tombs Limited Christchurch



C. Reginald Ford

THERE ARE BUT three contemporary published accounts of the *Discovery* expedition written by members of the expedition: *Two Years in the Antarctic* by Albert Armitage (1905), *The Voyages of the "Discovery"* by Robert F. Scott (1905) and the above very rare account by C. Reginald Ford which, although undated, appeared probably in 1906 or 1908. (Although not accounts *per se* the two volumes of *The South Polar Times*, the first edited by Shackleton and the second by Bernacchi—both published in 1907—may rightly be included as well; perhaps, too, Doorly's *The Voyages of the "Morning"* (1916) though this focuses on the relief of the *Discovery*.) Little is known about Ford's effort and the circumstances behind its appearance. It is a thin little limp-bound booklet, only 32 pages, measuring 4 5/8 by 6 inches and includes 13 black and white photo illustrations. It appears to have been re-issued in 1908 (New Zealand Booklet Series No. 7) as such an edition was sold both at the Gaston Renard *Antarctica* auction in 1994 and the High Latitude auction in 1996. If so, its appearance here may well be the third issue.

CHARLES REGINALD FORD was born in London and joined the expedition from H.M.S. *Vernon* as Ship's Steward. He settled later in New Zealand and became a well-known architect. Sir Clements Markham notes in his *Personal Narrative*: "Single. Plays the piano. Type writes. Broke his leg." Ford's typewriting skills were employed by the editors of *The South Polar Times*. As to the broken leg, it occurred during a skiing competition, the first such injury in the Antarctic. Scott noted that the "fracture healed with remarkable rapidity, and in less than six weeks Ford was able to resume his duties." Scott earlier wrote of Ford: "As ship's steward is a specially important individual in an exploring vessel; he has to keep the most exact account of the stores that are expended, and of those that remain; he has to see that provisions are properly examined and properly served out, and that everything is stowed below in such a manner that it is forthcoming when required. I had difficulty in filling this post . . . but eventually I decided to give it to C.R. Ford, who, although a very young man without experience, showed himself to be well fitted for it in other respects. He soon mastered every detail of our stores, and kept his books with such accuracy that I could rely implicitly on his statements." Scott still later recorded that "I found that Ford had become cook for the few who remained on board, and that, as a result of studying Mrs. Beeton's cookery book, he was achieving dishes of a more savoury nature than we had thought possible with the resources at our command."

Ford's journal is in the collections of the Auckland Institute and Museum, New Zealand.

Note: The format of the ellipses in the original printed version is obscure at best and has not been corrected here.

DUNDEE

Excerpts from the *Encyclopedia Britannica*, Ninth Edition 1878

DUNDEE, a royal and parliamentary burgh and seaport, is situated on the east coast of Scotland, in the county of Forfar, on the north bank of the Firth of Tay, twelve miles from the confluence of Ocean. It is the third town and the second in commercial 56°27'N., its longitude 2°58'W.; miles N.N.E., from Perth 22 county-town, 14 miles S. It the shores of the Tay, and varies a mile; and the ground gradually rises towards the hill of Balgay and Dundee Law, the summit of the latter being 535 feet above the sea-level. Its general

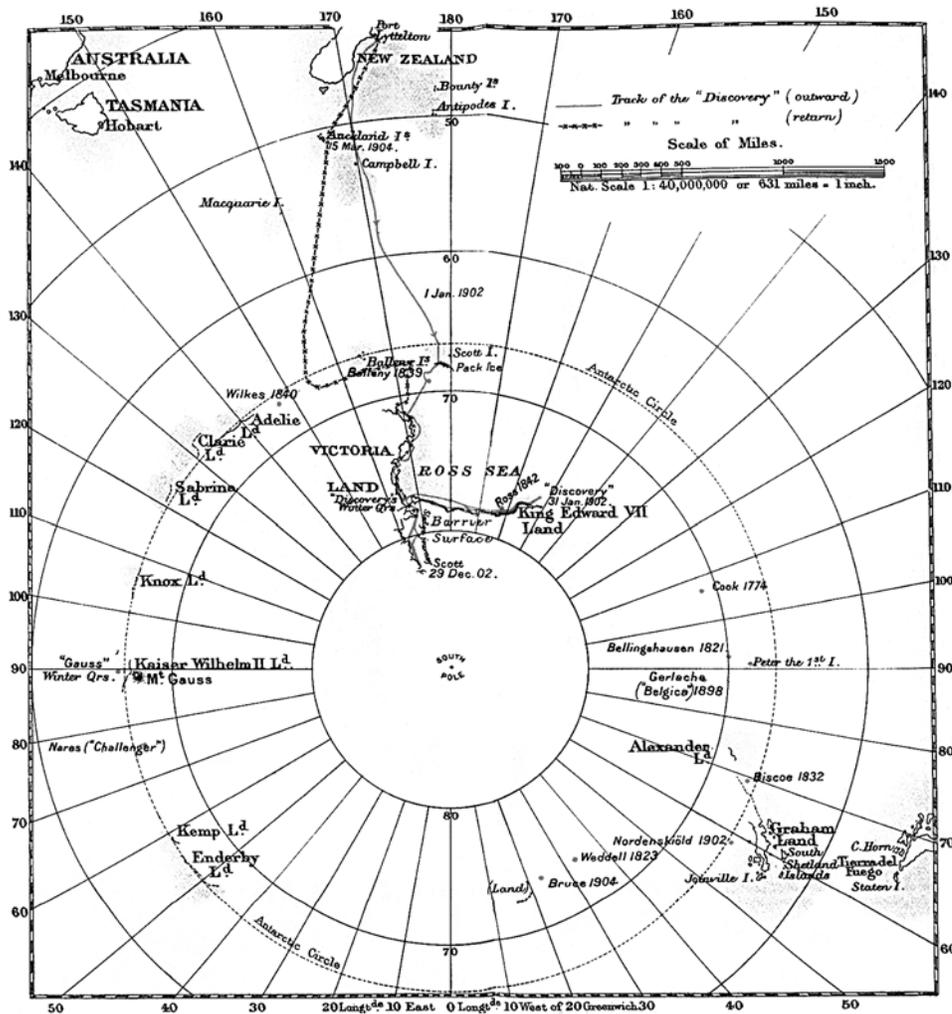


that estuary with the German in Scotland as regards population, importance. Its latitude is it is distant from Edinburgh 42 miles E., and from Forfar, the extends nearly three miles along in breadth from half a mile to

Dundee is the chief seat of the linen manufacture in Britain, and from a very early time appears to have had a special reputation in this branch of industry. . . . It was not, however, till the introduction of steam power, in the beginning of the present century, that there was any remarkable development of flax-spinning in Dundee. The first work of importance was the Bell Mill (which is still extant), built in 1806; and the first power-loom factory was erected in 1836. Side by side with the extension of the linen trade has been that of jute spinning and weaving. Large cargoes of this material are imported into Dundee direct from India, and it is manipulated on an enormous scale. In fact, the manufacture of flax, hemp, and jute fabrics constitutes the staple trade of the town, and supports, directly or indirectly, the great bulk of the inhabitants. There are upwards of seventy steam spinning-mills and power-loom factories, employing above 50,000 persons. Some of these buildings are of great size and considerable architectural elegance, those of Messrs Baxter, Messrs Cox, and Messrs Gilroy being especially conspicuous. These three afford employment to above 12,000 hands. The principal textile productions are osnaburgs, dowlas, canvas, sheetings, bagging, jute carpeting, &c.; and the total value of these fabrics annually produced has been estimated at upwards of £7,000,000. Among the other, industries of Dundee may be mentioned ship-building, engineering, tanning, and leather manufactures (including shoemaking by machinery), all of which are conducted on a large scale. There are also considerable

foundries, breweries, corn and flour mills, and confectionery and fruit-preserving works—Messrs Keiller & Son's "Dundee marmalade" having a most extensive reputation. The prosperity of Dundee is in a large measure due to its commodious harbour and its magnificent docks. The harbour works extend about two miles along the river side, and the docks, five in number, cover an area of 35 acres. Although they cannot compare in extent with those of London or Liverpool, they are probably unsurpassed in the kingdom for stability and convenience. . . . There were built at Dundee, in 1876, 32 vessels with a tonnage of 18,794, and at the end of that year the shipping belonging to the port consisted of 156 sailing vessels [and] . . . 38 steamers. . . . Eleven of the steamers are in the seal and whale fishing trade, each making two voyages yearly to the Arctic Seas. . . .

History. — Dundee is said to have been at one time called *Alectum*, but of this assertion there is no explicit documentary evidence. The earliest authentic mention of the town is in a deed of gift by David earl of Huntingdon, dated about 1200, which distinctly designated it "Dunde." The origin of the name is disputed, —some absurdly tracing it to the Latin *Donum Dei*, "the gift of God," others to the Celtic *Dun Dhia*, the Hill of God, others to *Dun taw*, the hill or fort on the Tay; the last named derivation is the most probable. Dundee was erected into a royal burgh by William the Lion, and has always been a place of considerable importance, figuring conspicuously in the early history of Scotland. . . .



The route of the *Discovery*, outward and return, and the sledge journey to the Farthest South. Map by Lieut. George F.A. Mulock, RN

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[E&TP-8]

The Discovery in Winter Quarters, Hut Point, McMurdo Sound. Looking south toward Observation Hill.

