

of the party went into ecstasies over the shapely low-lying mangroves that line the banks of the stream. It was the first green growth some of them had seen for over two years, and it was a relief to the eye after the eternal whiteness of snow-drift, glacier, and ice pack. The soft southing of the wind was also noticed in contradistinction to the mighty rushing storms which were scarcely ever absent from Adelie Land. Right up the river to the wharf it was evident that Dr. Mawson's party were glad of their return to the haunts of men and the bustle of the world. They returned the salutations of passing steamers wholeheartedly, and even with a note of praise for their safe arrival.

Features of the Aurora.

The Aurora looked surprisingly trim after her trip to the south and back. Her sides were smooth and polished, as the result of contact with the ice pack, and all about the deck was as shipshape as a man-o'-war. Her three tapering masts, with the crow's nest at the summit of the mainmast, overshadowed the slight funnel. Stretched between were the aerials of the wireless installation. Wireless communication had not, as was generally supposed from an absence of any public intimation of the Aurora's whereabouts, broken down, for, as a matter of fact, Mr. S. Jeffries, the operator, was receiving and dispatching messages on arrival at the anchorage. Very interesting was a visit to the saloon and the berths off it. A gramophone packed ready for sending ashore, and a piano spoke of many pleasant social evenings spent on the return voyage, and a well-thumbed library indicated how the monotony of the passage had been relieved. The thickness of the Aurora's hull could be seen by the space between the tiny portholes and the inside of the frames. "We did not want portholes down there," remarked Mr. Hodgeman. "The trouble was to keep out the cold."

Eleven Dogs Brought Back.

Eleven dogs used by the expedition were brought back from the Antarctic. They were lying along the scuppers, chained to the bulwarks, and evidently feeling the heat. Two of the animals are pure bred Sanoyedes, and the remainder Greenland dogs. Among them are some pups, born down south.

Macquarie Island Party.

Mr. H. Hamilton, the biologist of the Macquarie Island party, said:—"We left the island in the Aurora on November 25 and reached Adelie Land on December 16, and left again on February 7. We found Dr. Mawson and his party all well, but intensely glad to see us. They had had, of course, a much harder time than we at Macquarie Island. There we heard all that was going on in the outside world, because we were almost nightly in wireless communication with either Wellington or Hobart. Heavy winds blew away our aerials more than once, but we managed to shackle them up."

GREETINGS IN THE RIVER.

CHEERS FROM OTHER SHIPS.

As soon as Dr. Gething had awarded pratique Captain T. B. Richardson steered the Aurora towards the Outer Harbor. By 4 p.m. the vessel was in the channel, and on her way up-stream. As she passed the P. & O. Company's R.M.S. Marmora, which was berthed at the Outer Harbor wharf, preparatory to resuming her journey to London, the passengers on the mail steamer and a large number of persons on the wharf lustily cheered her. The compliment was acknowledged in an appropriate way. Messrs. Mellwraith, McEacharn, & Co.'s fine steamer Katoomba, outward bound, passed the Aurora just below the North Arm. Her passengers gave the explorers a vigorous cheer, and her flag was dipped as a compliment to their pluck. Those on board the Aurora replied with cheers and dipped their flag. Passengers on the Adelaide Steamship Company's steamer Morialta and the Coast Steamship Company's steamer Wandana, also outward bound, gave and received similar greetings. The steamers Telamon, at Ocean Steamers' wharf; Koorings, at Birkenhead Company's wharf; and Nardoo, at Adelaide Steamship Company's wharf, each dipped their flag. When the Aurora was abreast of Messrs. J. Darling & Son's mill the tug advance took her head, and assisted her through the fairway of Robinson-bridge. A large number of spectators watched the vessel pass through, and one or two who had friends on board hurried on to the vessel parcels of fruit, which proved most acceptable. By 5.45 p.m. the Aurora was made fast to the T head in the S.A. Company's Basin. She will remain there for a while.

FACILITIES FOR THE AURORA.

THE CAPTAIN'S APPRECIATION.

Captain Davis, who had charge of the Aurora, very much appreciated the facilities provided for him by the marine authorities and the prompt way all his requirements with regard to berthing were met. "It was a great thing," he told a representative of "The Advertiser," "to come into a strange port and find everything so well managed and everybody so ready to help one. I was afraid that on such short notice as we gave no arrangements would have been made for us at all."

DISCOVERIES BY THE AURORA.

SUBMARINE BANKS.

In addition to the exploratory work done by the members of Dr. Mawson's party in the Antarctic important oceanographic investigations have been made by the staff of the Aurora, and the world of science has been enriched by the results of their efforts in various ways. Writing on the subject of the "Discovery by the Australasian Antarctic expedition of important submarine banks," Professor David, of the Sydney University, said, in an article published in the Geographical Journal in May last:—

Captain J. K. Davis, of Dr. Mawson's Australasian Antarctic ship Aurora, has recently reported the discovery, as the result of an oceanographic cruise, of an important rocky ridge or bank about 200 miles south of Tasmania. The Aurora left Hobart on this cruise on November 12, 1912, returning to Hobart on December 14 following. She left Hobart for Adelie Land in order to pick up Dr. Mawson's main party at Commonwealth Bay, and his western party under Frank Wild at Termination Glacier, to the east of Gaussberg, on December 26. Captain Davis reports that for about 100 miles south of the southernmost land in Tasmania the bottom deepens steadily to 2,082 fathoms. It then commences to rise again to the crest of a long ridge, at least 150 miles in length. The shallowest portion of this ridge as yet proved by Captain Davis has a depth over it of 545 fathoms. Comparing this with the depth of the ocean in adjacent areas to the east and west, ranging as they do from 2,450 fathoms to 2,700 fathoms, one may conclude that the ridge rises at least 11,000 ft. above the general level of the neighboring sea floor. The ridge, as far as developed as yet, proves to be at least 100 miles in width. The bottom for the most part is hard and rocky, but no specimens of the rock have as yet been recovered. Captain Davis on this recent cruise also discovered a deep bank at a point about 60 miles north of Macquarie Island, and rising from depths of 1,750 fathoms to within 570 fathoms of the surface. The bottom here, too, proved to be rocky. All these interesting soundings were obtained by Captain Davis under very unfavorable weather conditions. Captain Davis intended spending some little time on his return voyage to Antarctica in developing the interesting Tasman bank to the south of Tasmania. He took with him as a recently joined member of Dr. Mawson's scientific staff, Mr. Vander Waterschoot vander Gracht, the brother of the Government Geologist of the Netherlands. He joined the expedition, giving his services entirely gratuitously, as a cartographic artist.

OBJECTS OF THE EXPEDITION.

A REPRESENTATIVE PARTY.

LIFE IN ADELIE LAND.

AN INTERESTING RETROSPECT.

Dr. Mawson's services in the Shackleton Expedition specially fitted him for the leadership of the Australian expedition, which left Hobart at the end of 1911. The enterprise was subsidised by the various States to the extent of £22,000, and the British Government contributed another £2,000. Dr. Mawson did not propose to reach the geographical pole, but to carry out investigations and make observations

in the vicinity of the magnetic pole. As was remarked by his Excellency Sir Day Bosanquet at the farewell to Dr. Mawson and his South Australian companions at the Adelaide Town Hall on November 18, 1911, "the primary object of the expedition was scientific enquiry, because within so short a distance of enlightened Australia there existed a large continent about which they knew very little. There were when the expedition set out, over 2,000 miles of uncharted coastline. Meteorological observations of the highest value have resulted from the data accumulated at Macquarie Island, and at the magnetic base. The use of a valuable equipment lent by the Carnegie Institute of Washington, considerably assisted the party in their magnetic observations. The explorers were not cut off from communication with the rest of the world, as the wireless telegraphic station between their bases and Australia enabled the public to get frequent messages from them."

Universal European Interest.

Referring further to the objects of the expedition, Sir Day Bosanquet said:—"The geological and biological prospects were particularly interesting from the point of view of Australia, more particularly in tracing the collateral conditions in the neighboring continent of Australia. Almost nothing as yet was known of the conditions of the deeper waters in the Southern Ocean or its inhabitants, and with the aid of the special deep sea gear supplied by the Prince of Monaco, the expedition hoped to shed much light upon the problem. The proposed expedition had aroused universal European interest, and all the Antarctic explorers in Europe had given their best advice and assistance both in funds and material. From time immemorial it had been the custom that the leaders of expeditions for scientific polar exploration on the eve of their departure should receive from the representatives of their fellow-countrymen in public assembly that meed of honor to which, in the past, their efforts had justly entitled them, together with the expression of those sincere desires for the successful result of their labors in the future, which must ever animate the hearts of the community which sent them forth. Dr. Mawson had already given evidence to the world of his high qualities of leadership, such as self-sacrifice, devotion to duty, determination, endurance, and hardihood, which has caused him to be singled out as commander of the expedition. South Australia was proud of him, the University of Adelaide felt the honor it derived from association with his exploits in the past, and they were all assembled there to express the confidence they felt in his successful leadership. Speaking for himself, he (Sir Day) was very proud to be there to assist in giving the leader of the expedition and the South Australian members of his crew—Messrs. A. L. Kennedy, C. T. Madigan (Rhodes scholar for 1911), M. H. Moyes, A. J. Hodgeman, and P. Correll—a hearty farewell and send off, at the same time wishing them the best of good luck, the utmost success in the aim and objects of the expedition, and in their work as pioneers, and on its conclusion a safe and happy return to South Australia. That was the second time he had had the honor to assist in sending for a similar expedition, as in 1907 he was Commander-in-Chief at Portsmouth, from which Sir Ernest Shackleton's expedition sailed for the Antarctic after having been inspected by King Edward and Queen Alexandra. Sir Ernest Shackleton had lately shown his sincere friendship for Dr. Mawson and his continued sympathy with Antarctic exploration by raising in London the sum of £8,000 towards the expenses of the expedition. The scientific problems hidden under Antarctic snow and ice were all such tremendous importance to the well-being of the human race as completely to justify, not only the highest efforts of each member of Dr. Mawson's party, but also the large expenditure which had necessarily been incurred."

Increasing the Sum of Knowledge.

Dr. Mawson is a member of the staff of the University of Adelaide, and the council of that institution have twice granted him extended leave to enable him first to join the Shackleton expedition and then to lead the Australian party. The Chancellor of the University (Sir Samuel Way) stated at Dr. Mawson's farewell that it was to the advantage of the constituents of the University that they should learn more of the petrology and mineralogy of the Antarctic. The University did not exist for the sole purpose of imparting knowledge, but also to increase the sum of knowledge by research and discovery. Dr. Mawson was one of the three men in the Shackleton expedition who ascended Mount Erebus, and looked down into its glowing crater. He had already determined the site of the magnetic pole, and