

was one of the three heroes who stood there and planted the Union Jack thereon. Thirty of the best young men and students of New Zealand, New South Wales, Victoria, Tasmania, and South Australia had joined the Mawson expedition. The South Australian Government had given the lead to all the Australian States by granting £5,000 towards the cost of the expedition, which was estimated at £50,000.

Confidence and Character.

When Dr. Mawson left Adelaide he was aware that the Australian public and the various bodies directly interested in the expedition had absolute confidence in him and in the companions he had chosen. When the proposition for the expedition was put before the committee of the Australasian Association for the Advancement of Science in Sydney it was proposed that the association should give one-third of its total funds towards the project, and there was not one vote among the 50 members cast against the motion. It was the character of Dr. Mawson, combined with his scientific ability, which made him a capital leader, and, as he told his Adelaide friends on taking leave of them, character was what he had looked for in choosing the personnel of his party. It was not an easy matter to determine the character of a man until circumstances arose which would bring out his best qualities, but he was more than confident about the splendid character of his South Australian companions. In thanking the South Australian Government for their donation of £5,000, Dr. Mawson said the success they might have would be due more to the State Government than to any other body. He did not wish the Aurora to be sold for commercial purposes, but hoped the Federal Government would see the importance of keeping it for future work.

Perilous Experiences.

It was with a full knowledge of the privations and dangers to which they would be exposed that the expedition sailed for the Antarctic. It was a great shock to Dr. Mawson when on December 4, 1912, Lieutenant Ninnies met with a tragic end through falling with a dog-sledge containing provisions into one of the many deep crevasses with which the Antarctic regions abound. Dr. Mawson and Dr. Mertz continued the journey back to their base alone, and, being in need of food, they killed their dogs, one by one, and ate them. Eventually, on February 8, 1913, Dr. Mawson struggled back to his base, but Dr. Mertz had died about a fortnight previously. The irony of it was that a few days before Dr. Mawson's return to his base the Aurora had arrived there to pick up three sledging parties. Captain Davis waited in Commonwealth Bay until the rapid approach of the winter season rendered it necessary for him to steam away, which he did without Mawson and the small party with him, who were compelled to winter once more in Adelie Land.

Personnel of the Expedition.

Dr. Mawson selected the following men to accompany him on his long journey:—
 South Australia—Messrs. C. T. Madigan, M. H. Moyes, A. L. Kennedy, P. E. Correll, and A. J. Hodgeman. Victoria—Messrs. H. D. Murphy, F. H. Stillwell, C. A. Hoodley, and G. F. Ainsworth, and Lieutenant R. Page. Tasmania—Mr. Harri-

son. New South Wales—Messrs. J. Hunter, A. D. Watson, C. F. Laseron, W. H. Hannam, C. F. Hurley, and J. H. Close, and Drs. A. L. McLean and S. E. Jones. New Zealand—Messrs. S. Webb, H. Hamilton, and Sawyer, and Dr. L. H. Whetter. Europe—Messrs. C. A. Sandall and F. Bickerton, Lieutenant Ninnies, and Dr. F. Mertz. The members who returned on the Aurora on Thursday were:—
 From Macquarie Island—Messrs. Ainsworth, Hamilton, Blake, and Sandall. From Adelie Land—Dr. Mawson, Lieutenant Page, and Messrs. Maddigan, Bickerton, Hodgeman, McLean, and Jeffreys. Messrs. Hurley (photographer), Hunter (biologist), and Correll, who were also on board, had been on the Aurora during its most recent cruise. All told, the land party numbered 32, and there was also the crew of the Aurora, in charge of Captain J. K. Davis. Dr. Mawson, whose position on the staff of the Adelaide University is lecturer on petrology and mineralogy, is a native of Bradford, Yorkshire, where he was born in 1882. He graduated at the Sydney University in 1901 as a Bachelor of Mining Engineering, and in the following year became a demonstrator of chemistry at that institution. In 1903 he took part in geological exploration in the New Hebrides. The degree of Bachelor of Science was secured

by him in 1904, and in the following year he was appointed to the staff of the Adelaide University. Four years later he became a Doctor of Science. Mr. Madigan, the South Australian Rhodes scholar of 1910, was given permission by the Oxford authorities to accompany the expedition. Messrs. Moyes and Kennedy are also graduates of the Adelaide University. Mr. Correll, a mechanical engineer, was a student at the University, and Mr. Hodgeman is a draftsman from the Public Works Department.

THE AURORA'S FIRST RETURN.

When the Aurora arrived at Esprance Bay, near Hobart, on March 14, 1913, the secretary to the expedition (Mr. C. C. Eitel) gave an account of the trip to the press of the Commonwealth, in which he said:—The Aurora left Hobart on Boxing Day to retrieve the two parties of the Australasian Antarctic expedition which spent a year on the Antarctic Continent. We were shocked to discover that morning the town plastered with placards announcing the wreck of the Aurora. The coffin ship proved to be a namesake of our vessel which had been made the subject of cinematograph pictures, but it caused us to wonder whether history was about to indulge in a hackneyed repetition. This was scarcely auspicious, but good omens were present in legion. There were bright sunshine and not a ripple on the harbor, and King's Pier was crowded by Hobart friends. We had a great send-off at the Tarooma Quarantine Station, and embarked 21 Greenland dogs, Captain Amundsen's presentation. The ship was a regular Noah's ark. There were 28 men, 21 dogs, 45 sheep, 2 turkeys, 4 fowls, and 1 pig. At night, when the ship was rolling, the animals gave voice. "If a ship comes near us in a fog," remarked the mate, "they will imagine they have come close to a farmyard." We purchased a large quantity of desiccated barracoota fish feed for dogs, but so many sheep dodged the butcher by dying in the middle of the night that the dogs fared sumptuously on mutton, and landed eventually in magnificent condition. The Aurora was fitted with a wireless receiving apparatus, and was able to secure messages from Dr. Mawson's base, Macquarie Island, until two days before reaching Adelie Land. We had also taken a whaling expert, Captain James Davis, to test the right whaling potentialities of the Antarctic, and we had a harpoon gun, and full equipment. This was done by the request of the Federal Government, but not a single right-whale was observed on the whole voyage. At one stage the presence of innumerable birds impressed us that we were possibly in the vicinity of the elusive Royal Company Islands, but despite a keen watch no land was discerned. We found that the 40 mile long ice barrier charted last year 60 miles westward of Adelie Land had disappeared. The Aurora passed through no less than 30 hours of pack ice before reaching the main base. Even then there were many wide leads, confirming Dr. Mawson's assertion to me in a letter that it was possible to visit the base in an iron steamer.

The Main Base Sighted.

Early on the morning of Monday, January 13, the Aurora sighted the main base. In the afternoon, the sea moderating, a motor boat was conveyed on shore. Captain John King Davis, the chief engineer, and myself, as we entered the boat harbor, saw Murphy ascending a hill with a sledge and two dogs. We coo-eeed, but failed to attract his attention. We waved our arms like windmills, screaming, "Ship, ship." The rest of the occupants of the camp poured out like ants, and walked 50 yards to meet us. Nine unkempt, wild-looking men, heterogeneously attired, grasped our hands, cheered, yelled, and danced in their excitement. Many were scarcely recognisable, owing to their hair and whiskers being bleached by snow during the sledging journey. They needed not to tell us that they had passed through a strenuous and anxious time. The stamp of the hardship they had undergone was indelibly fixed on their faces, though each man was in the pink of condition. Some of the boys had become men. This specially applied to 19-years-old Correll, the baby of the expedition. The severe training of the Antarctic winter has endowed many with stamina and courage, and will be the making of them. The motor boat was made fast, and we entered the camp, where the mailbag was opened, some receiving a hundred letters. Our first question was, "Where is Dr. Mawson?" We were told he was expected to return from a sledging journey in a few days. The other two parties also were shortly due. The winter quarters, which were most comfortable, consisted of a living-room, 24 ft. square, also a smaller workroom, two enclosed verandahs, one being used for the motor sledge.

A Feast Ashore.

We had brought on shore cases of pineapple, oranges, carcass mutton, fresh meat, and fruit, exactly what "the beleaguered garrison" were craving for. Not that they were faring badly. We were regaled on raspberry sponge made with penguin eggs, tea made with melted snow, which was nectar compared with the stewed ship tea, and custard made with powdered milk, and penguin eggs flavored with vanilla essence. And we even had tinned strawberries! What luxury for the Antarctic! When dinner-time came an appetising aroma filled the camp. "What is it?" we asked. When the door opened a big dish of penguin breast, baked with bacon was brought forth. It surpassed Christmas turkey. The shore party attacked the mutton, and we tried the penguin. Silence reigned. Then Dr. Maclean exclaimed, "The mutton is a splendid change, but give me penguin breast every time."

"Windiest Corner of the World."

Beyond doubt, the most interesting scientific results will consist of meteorological data. Winter quarters at Commonwealth Bay proved absolutely the windiest corner of the world. The expedition was specially equipped with anemometers indicating strength, anemograph records, direction, and a gust recorder showing the maximum velocity. The lay mind cannot conceive the wind velocity when expressed merely in figures. The wind blowing 50 miles an hour constitutes a full gale. The shore party staggered us by records indisputable that the average velocity during the whole 10 months was 52 miles an hour. A maximum of 202 miles an hour was actually registered by the gust recorder. The highest average for any one hour was between 90 and 100 miles. Some of the gales lasted several months, with only a few hours' interval. When the gales took the form of a blizzard it was impossible to see a yard ahead. On one occasion Correll was lost for two hours making a journey of ten yards from the camp to the meteorological screen. Hodgeman was similarly lost for two and a half hours returning from the magnetic hut, less than 200 yards distant. It was necessary for them to crawl on their hands and knees. These figures eclipse the records of any other part of the world, and have earned for Adelie Land the title of "The hell hole of the wind." Mind, these relate to the wind at the actual base. On the plateau above the wind is always greater. The keynote of scientific results is undoubtedly the velocity of the wind, though much other striking scientific work was achieved. Add to the terrible wind a temperature which descended to minus 29 deg. Fah., and it will be realised that the expedition from sunny Australia endured a full measure of hardship. Yet some people had characterised it as a glorified picnic.

Mawson Left Behind.

Dr. Mawson had stated definitely in the letter he left behind that he would return from sledging on January 13. When that date had passed without any appearance of the commander no particular anxiety was felt. His party were very strong, the commander, Dr. Mertz, and Lieutenant Ninnies all being of splendid physique. The Swiss was the only one under 6 ft., but he possessed great muscular development, which was the admiration of the camp. He had been an officer in the Swiss army, and a champion ski runner of Switzerland, so a knowledge of ice work must be accounted to his advantage. Dr. Mawson was acknowledged to be a most capable and cautious leader, having made ice travelling a study. Lieutenant Ninnies stands 6 ft. 3 in., and though only 22 years, is a powerful man. The party also had the enormous advantage of 18 Greenland dogs to haul their sledges. Dr. Mertz and Lieutenant Ninnies had had charge of the dogs ever since they were placed on the Aurora in the London docks. Three men can easily haul a sledge and a load of 800 lb. over a good surface. Experience has shown that three dogs are equal to one man, so the party had an abundance of haulage power. True, they had over 600 miles to traverse, but at the worst they would have dog flesh to eat. Indeed, Dr. Mawson calculated the ration on a basis of returning to camp with only three out of the 18 dogs. All the members of the shore party were anxious to leave this "hell-hole of wind," but courage was indicated by them unanimously agreeing to remain behind another year to search for Dr. Mawson while the ship proceeded to the rescue of Wild's party. It was finally decided that only six men should be left behind. Cecil Madigan, the South Australian Rhodes scholar, was appointed leader, his comrades being R. Page (Melbourne), A. N. H. Bickerton (London), Hodgeman (Adelaide), McLean (Sydney), and S. Jeffries (wireless). Not a mur-