

1904 he gained the degree of Bachelor of Science, and in 1905 became a lecturer on the staff of the University of Adelaide. He made a number of geological researches in the Broken Hill mining area, and investigated the reported discovery of radio-active deposits at Olary, South Australia. He was chosen out of 470 applicants to become a member of the Shackleton Antarctic Expedition. The degree of Doctor of Science was awarded to him in 1909.

Organizing the Expedition.

Dr. Douglas Mawson, who was lecturer on mineralogy and petrology at the Adelaide University, accompanied Sir Ernest Shackleton on the English explorer's visit to the antarctic in 1908-9. He did magnificent work—he was practically the discoverer of the magnetic pole—and was highly eulogized by his leader. Early in 1910 it was decided that, all going well, an Australian expedition would start for the south during the next year. The leader was, if possible, to be Sir Ernest Shackleton, but if he were unable to go the chief position was to be taken by Dr. Mawson. Sir Ernest had been promised £11,000 by two supporters, who were either Australians or interested in Australia. The total sum required was between £20,000 and £40,000, and a successful appeal for support was made to the Commonwealth Government and several of the State Governments. Dr. Mawson, speaking at that time, said it was believed that the scientific material that would be collected by the expedition would outclass any previous undertaking of the kind. On the question of attempting to reach the south pole, he remarked that he was pretty certain Capt. Scott would do that, and apart from that great feat of leadership there was 10,000 times more to be done in the particular part of Antarctica to which his own expedition proposed to proceed. Ever since he had been

connected with the antarctic he had recognized that the part which it was scientifically most important to explore was the great unknown coastline directly south of Australia. It covered a length of 2,400 miles between Cape Adele at one end and Gaussberg at the other. Only once in the whole of history had that coast been touched, and then but during one isolated call of a few hours. It was no less than 70 years ago, that Dourmont and D'Urville, sailing south in charge of the famous old French expedition which called at Sydney and Hobart, just touched a point on that long coast. No ship had ever since attempted to do so. No part of the antarctic contained such potentialities for research as did that shore. It was the nearest part to Australia, and it should be Australia's special duty, and her obligation, to contribute to the world at large whatever store of the secrets that land held. Whatever material of economic value—gold and mineral wealth, whale oil, seal oil, or anything else—it might contain, would, of

course, be to the advantage of Australia. The expedition would have a station close to the magnetic pole, and would make more definite the magnetic work which Australia already had the credit of achieving. The meteorological results should be of very special value, because it was from that coast that Australia weather comes. If the Commonwealth Government ever ventured so far as to erect a wireless station for advising changes in the weather conditions it would be on that coast, and not where any of the previous expeditions had wintered.

Dr. Mawson's Plans.

In explaining how the plans for the expedition were inaugurated, Dr. Mawson stated:—"I went to Europe at the end of 1909 chiefly in order to further the interests of the Shackleton Expedition by helping to complete the publication of its scientific results, especially the magnetic and geological. So soon as I arrived in London I had to decide whether I would join Capt. Scott on his expedition, which was then being formed. He made me a very good offer to go with him, and we came to a tentative arrangement, but in the light of subsequent events I decided to alter my plans and withdraw. Capt. Scott's programme was so extensive that it would not allow of detailed scientific examination of that part of the coastline which I considered so important a part to the south of Australia. I determined to try and get an expedition sent to this coastline."

Work to Be Accomplished.

Setting out from Hobart at the beginning of December, 1911, the Aurora first put in at Macquarie Island, where a party was left with a wireless apparatus of sufficient power to communicate, on one hand with Hobart, and on the other with South Victoria Land, the nearest portion of the antarctic continent. From Macquarie Island the vessel passed on to a point on the coast nearest to the magnetic pole, which was only about 250 miles inland. Here the main party, under command of Dr. Mawson, landed. The Aurora next passed around the coast, leaving one party at Clarie Land, and another at Knox Land. It was hoped that these parties would be able to maintain wireless communication with each other, and with Dr. Mawson. Australia would, by that means, be the pioneer in the scientific use of wireless telegraphy for the work of exploration. It was intended that from Knox Land the explorers, passing westward, would probably make an attempt to penetrate southward near to the coast—if coast it can be called—on which Capt. Nares touched in 1874. The 1,500 miles of ice land between the points at which the first and third parties were to land, and an extension on either side of Cape Adare and Gaussberg, seemed marked out as a natural possession of Australia. Portions of it are nearer to Hobart than that city is, for instance, to Albany or Cairns. This nearness was realized by D'Urville, the French captain, who, many years ago, made a dash from Hobart in a sailing ship, and coasted along, conferring the names Sabrina Land, Clarie Land, and Adelie Land on different parts. He then returned to Hobart, after an absence of only seven weeks. Dr. Mawson, however,

at the time of his departure, did not expect to return until April, 1913, and by that time hoped to have charted the coast definitely, to have found harbours suitable for sealers or whalers, to have searched for indications of minerals, and to have done valuable meteorological work, especially in predicting the appearance in Australia of those antarctic depressions which so often trouble us. It was expected that with wireless communication the exact time would be available for the observers, and that in many respects the scientific results would surpass in accuracy anything previously obtained. During the winter aerographic surveys on the lines followed by the Prince of Monaco were to be made. Trawling at a depth of 500 to 2,000 fathoms was to be attempted, and it was thought that in this almost unexplored ocean every haul of the net would bring up species new to science. "Few vessels," said Dr. Mawson, "have ever come within sight of this coast, and practically none since the days

of Wilkes and D'Urville. We desire to raise the Union Jack and take possession of this land for the British Empire."

When the Party Left.

On their way to Hobart to join the Aurora, Dr. Mawson and several members of his party were given a splendid send-off at the Adelaide Town Hall on November 18, 1911. In responding to the good wishes tendered, the leader said:—"Most of the speakers have referred to myself and I appear to be the chief spirit in the expedition. To some extent that is so. Everything depends upon the personnel of the expedition. But I am only one of the 32 of the land party. I can do nothing more in some respects towards the success of the expedition after having chosen the staff. It is an obligation on my part to choose the men who will do the work, for direction is useless in such circumstances. I have done my best to choose men of character. The most important point to look for in members of an expedition like this is character. . . . A reference has been made to risks. Of course they are inseparable from undertakings of this kind. Every man must go forward with the certain knowledge that he is facing the risks of life and limb. We shall meet dangers as they come."

TRIBUTE TO BRAVE MEN.

Work of Great Scientific Value.

MELBOURNE, February 25.

The Governor-General made the first public announcement of the message from Antarctica at the speech-day ceremony in connection with the Church of England Grammar School this afternoon. After having read Dr. Mawson's telegram, and expressed regret at the news, His Excellency said he understood that Lieut. Ninnis was an Englishman, who had accompanied the expedition in charge of the dogs, and that Dr. Mertz was a Swiss expert in the study of ice and snow. He knew, however, that Australians would mourn for the death of these two brave men without respect of race. "I am sure," continued Lord Denman, "that when further details are received it will be found that Dr. Mawson has justified the confidence reposed in him by Australia, and has done work of great scientific value in behalf of the Commonwealth. (Applause.) I hope that he and his comrades may successfully brave the perils and privations of another winter in the antarctic. (Applause.)"

Message from the Governor.

His Excellency the Governor (Sir Day Rosanquet) was advised of the communications from Dr. Mawson. Afterwards the following message in reply was received from Marble Hill:—"In behalf of the State of South Australia, His Excellency the Governor desires to express to Dr. Mawson and his associates deep sympathy and condolence in the loss of their two comrades, and his hearty congratulations upon the success of the exploratory operations."