

was a chance of obtaining seals for food. It seemed to us, however, that now we knew the nature of the country between us and winter quarters, a return journey over the plateau, avoiding most of the bad areas met with on the outward journey, could be made in quick time, and by eating some of the dogs the food supply would last out. After full consideration the latter plan was adopted. Nine hours later I read the burial service. We then set our faces towards the hut.

#### Starvation Rations.

The food was apportioned on a mileage basis. Owing to delays by bad weather, the ration had to be reduced further than had been anticipated. The dogs gave out daily, so that soon there were none left. The little flesh that they provided contained a minimum of nutriment and was difficult to digest. Nevertheless, early in the first week in January we arrived at a point 100 miles from the hut. For several days past Mertz had shown a derangement of the alimentary system resulting from these short rations. I was affected likewise to a lesser extent. We were very weak from want of food, and the weather was abominable; day after day, nothing but dense falling and drifting snow, and the cold struck home as it never does when one is in good condition. Our last few miles had been covered in short stages with great difficulty.

#### Death of Dr. Mertz.

On January 3 it became evident to me that my comrade's condition was worse than my own. Even the best food we had did not have the effect on Mertz expected. He was very cheerful, however, and we spent most of our time talking of distant restaurants and the meals we would have together on reaching civilisation. A better companion I could not have wished for, and the same applied to Ninnis. They were both fine characters. The weather was a little clearer on January 6, but owing to a slippery surface, which we could not see on account of drift, falls were continuous. It was soon evident that Mertz could not proceed on foot, and with him on board the sledge, even with the help of the sail, progress was slow and much toil resulted in two and a half miles only being recorded on the meter, which meant certainly a less distance towards the goal, for it was possible to steer only a very rough course in the drift. On the morning of January 7 Mertz' condition became much worse, and about midnight, January

7-8, he passed away to that bourne from which no traveller returns.

#### Dr. Mawson Almost in Despair.

My own condition was such as to hold out but little hope, but I determined to push on to the last, anticipating that at least a record might be left in a position likely to be passed over by search parties. Of the month that followed, engrossed on the one hand by a close fight with starvation, and on the other with a war on the miles that lay ahead, I do not wish to be reminded. What made it most difficult was the fact that it snowed and drifted almost every day. Crossing the badly crevassed ice of the Mertz glacier under those conditions, left me with only a chance of success. It was in a crevasse there where I came nearest to again meeting my comrades. Eventually, in a more miraculous way than my own powers could have accounted, I came across a cache of provisions left by a search party, and with the help of these I was enabled to gain the hut. As I descended the ice slopes to the hut the Aurora was visible on the horizon outward bound.

#### At the Main Base.

The party left by Captain Davis at the base to carry on the scientific observations for another year and make a search for the missing party, were glad when I decided to recall the ship by wireless. The Aurora was fitted with a receiving set, but had not the necessary apparatus for sending messages. It was a beautifully calm afternoon and evening, and we expected to be away early in the morning. As the ship came in sight again, however, the wind rose, and, of course, there was no knowing how long it would continue, for, after all the calm periods are few and far between, except at the height of summer. I had learnt from those remaining that great anxiety had been expressed by Captain Davis as to the safety of the western party in charge of Wild, should they not be relieved that year. In the absence of exact information as to the circumstances under which that party were wintering, possible difficulties in relieving them depending on the weather conditions in that locality, the special features of the pack ice thereabout from the point of navigation, and, finally the absence of any information as to the condition of the

snip, nor coal supply, health of crew, &c., I could do no other than leave the decision as to further delay at the main base to Captain Davis, who was acquainted with all these details. Accordingly I sent a wireless message to the ship to the effect that I hoped the position would allow of the Aurora remaining a day or two longer, in the hope of the weather calming, leaving the actual decision to Captain Davis himself. Although this was sent repeatedly, it does not appear to have been picked up. As evening came on the barometer fell, and we saw no more of the vessel.

#### A Weary Year.

The year passed ever so slowly as compared with the preceding one, and the weather proved even less suitable for sledging excursions. No undertakings at a distance from the hut were entered into in the late summer, partly on account of my condition, and partly because of a faint chance that the Aurora might return after relieving the western base, there having been some suggestion of this sort before the ship's departure. A wind velocity of 116 miles per hour was recorded for the average for one hour in July. Early in the following summer, Madigan and Hodgeman accompanied me on a short sledging journey. It was on the return, when descending the ice slopes leading to the hut at 11 o'clock on the evening of December 13, that we descried a thin trail of smoke on the north-west horizon acquainting us with the approach of relief.

#### "Bundled Out" by a Hurricane.

Some days were spent in Commonwealth Bay previous to final departure, which event took place hurriedly under circumstances typical of the place, the Aurora being bundled out neck and crop by a violent hurricane. The air was filled with snow, obscuring surrounding objects, and it was due to the skill and experience of Captain Davis that we got out with no further damage than the loss of the motor launch. Dredgings were taken along the Continental shelf off Adelie Land, and a course was then set to the west, where we investigated the pack-ice, took soundings, serial temperatures, and carried out tows netting at various depths, and dredgings. It was a disappointment to find the ice conditions worse than on either of the previous cruises, but we were able to add much detail to the former work. Very striking ice formations were met, of which Hurley obtained splendid photograph and cinematograph records.

#### Gathering Lacking Data.

Regarding the operations of the expedition, our plans, it will be remembered, were to investigate the remaining unknown portions of the Australian quadrant of Antarctica, together with subsidiary work in the intervening regions, the whole to supply a deeply-needed want in the knowledge of the regions to the south of Australia, at the threshold of which we live, and of which almost nothing is known. Of course, I do not include the eastern extremity of the Australian quadrant—the Ross Sea area—concerning which great detail has come to hand from the many expeditions that there have found a convenient landing-place for the achievement of the south geographic pole. The interesting and far-reaching results accruing from those expeditions only served to heighten the value of data lacking from the great region to the west.

#### Australia's Natural Heritage.

The results of our two years' work supply information which fills this gap and completes a survey of the salient features of the quadrant. Surely, it is only right that neighboring lands, in this case a natural heritage of Australians, should not remain a terra incognita, and with it be sealed up scientific facts of importance in the interpretation of problems in the homeland. By carrying the Union Jack, and, in particular, the Commonwealth flag, from the already explored areas in the east to the western extremity of the quadrant, we have clinched a claim upon its future. The new lands discovered and the areas traversed by sledging journeys attract attention, but it is the mass of carefully recorded data, accumulated by sea and land, that must eventually claim regard. These results will be appreciated better at a later date, when they have been elaborated. We are looking forward to making preliminary statements relating to them before the British Association at its meeting in Australia in August.

## WHAT WAS DONE.

### A BRIEF RECORD OF THE RESULTS.

Dr. Mawson on Friday morning communicated to the press what he described as a terse statement of the work accomplished by the expedition, which read as follows:—

First.—The successful negotiation by the ship of Antarctic pack-ice in a fresh sphere of action, where conditions were practically unknown, resulting in the discovery of new lands and islands.

Second.—The establishment of two Antarctic wintering stations separated by an airline of one thousand miles, both on lands never before sighted. At these stations scientific programmes have been conducted, in one case for a period of one year, and in the other extending over two years.

Third.—Journeys made over sea ice and plateau in regions never before sledged over—at main base, aggregating two thousand four hundred miles, at western base 800 miles, which figures do not include depot journeys, supporting parties, or relay work. Land has been followed through 33 deg. of longitude, 27 of which have been sledged over.

Fourth.—The establishment of a party at Macquarie Island, sub-Antarctic possession of the Commonwealth, and the spending of two years' mapping and investigating the island, and acting as wireless connecting link with Antarctic main base, and communicating weather conditions daily to Commonwealth Meteorological Office for immediate use in preparing forecasts.

Fifth.—Oceanographic investigations chiefly of the nature of soundings and trawlings prosecuted from the ship in depths between Australia and Antarctica, and along the Antarctic continental shelf. Trawlings have been successfully conducted to depths of two miles. By soundings the continental shelf has been indicated through 55 deg. of longitude.

## WELCOME - HOME GATHERINGS.

### THE UNIVERSITY RECEPTION.

#### A CITIZENS' MEETING.

A special congregation of the members of the University has been arranged by the council of the University for Monday at 2.15 for the purpose of tendering a formal welcome to Dr. Mawson. His Excellency, the Governor-General has ac-

cepted the invitation of the council to be present. The Prime Minister and the Minister of External Affairs, the Premiers of the States of New South Wales, Victoria, and South Australia have also been invited to attend. The Chancellor (Sir Samuel Way) will preside and deliver an address of welcome. The Governor-General, Dr. Mawson, Professor Masson, of Melbourne, and others will also speak. Professor Masson will arrive by the express this morning. The attention of members of the University is called to the official notice appearing in our advertising columns. A meeting of the council was held on Friday afternoon, and the arrangements made for the gathering on the previous afternoon were confirmed.

The citizens will be afforded an opportunity on Tuesday of according a welcome to Dr. Mawson and his colleagues, as the Mayor (Mr. A. A. Simpson) has decided to call a public meeting to be held in the Town Hall for the purpose.

### CONGRATULATIONS FROM MELBOURNE.

Melbourne, February 27.

The following telegram was sent to Adelaide from the Royal Geographical Society:—"Dr. Mawson and party, steamship Aurora, Adelaide—Warmest felicitations from Royal Geographical Society of Victoria. We opine that your patient, arduous work will have valuable scientific results. Looking forward with pleasure to welcome you in Melbourne.—A. O. Sachse, president."