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—Revival of Interest.—

During the last few years the interest in antarctic work has grown and spread, and at the present time England, Scotland, Germany, France, Norway, the United States, and Japan are all contributing, or likely to contribute, expeditions. Some of these have for their chief object the conquest of the pole itself; others appear to be organized mainly for commercial purposes; while others go in the cause of science, to add to our knowledge of the earth. All, probably, are actuated in part by the wish to add honour to their country's name. But, in this friendly international contest, the coast of the Australasian Quadrant has so far been left untouched; for it is felt by others that Sir E. Shackleton established a claim to further work in that direction when one of his sledge parties sought and found the south magnetic pole, inland from and between Cape Adare and Adelie Land. Of that small party two were Australasian scientists; and, now that Shackleton finds himself unable to lead another expedition, it is to one of these, Dr. Douglas Mawson, of the University of Adelaide, that he hands over his rights, and expresses the hope that he may succeed in organizing a truly Australasian expedition. To explain fully the objects to be served by this expedition would occupy too much space. The following summary must suffice. In the first place, there is no purely sporting element in the project; the race for the south pole is left to Capt. Scott and Capt. Amundsen. The main objects are to survey and map as much as possible of the coast between Cape Adare and Gaussberg; to investigate its geology and mineralogy; to study glaciers and ice formation; to make systematic magnetic observations, especially in the neighbourhood of the magnetic pole; to obtain a continuous meteorological record and test the desirability of establishing a permanent meteorological observatory in those parts; to investigate the fauna of a sea that abounds in life. The scientific problems suggested in this short summary are numerous and of the greatest importance, and there are others.

—Economic Aspects.—

But the list also shows that Australasia may expect results of practical value, apart from pure science, in return for the expenditure incurred. Two thousand miles of unexplored rocky coast means mineral potentialities that may perhaps prove worth realizing; and, if so, the task would be less formidable than the exploiting of the goldfields of Alaska. A sea known to abound in seals and whales of various kinds holds out hopes of valuable fisheries, especially when it is remembered that at one time on the South American side of Antarctica the trades in oil and furs gave rich returns till they were pursued to the point of extinction. But the most probable source of profit to Australasia lies in the meteorological work, for it is from the icy regions to the west of south that we may look for an extension of our knowledge of Australia's weather and of our power of forecasting it; and who shall estimate the value of such knowledge in a country like ours?

—Scheme and Staff.—

The planning of the details of the work of the expedition and the selection of the staff are in the hands of a special committee of the Australasian Association, which was appointed at the Sydney meeting. One or two of the most important features of the scheme may be mentioned. It is intended that the expedition shall start at the beginning of next summer and be absent for about 18 months. Three, or perhaps four, stations will be established at considerable intervals along the coast, each with its scientific staff and outfit. The chief will be at Adelie Land, and it is to be kept in constant touch by wireless telegraphy both with the subordinate stations and with Australia itself. Some inland exploration will be done by sledge parties. After landing the expedition, the ship will be detailed for sounding and dredging work in little known waters. The estimated cost of the scheme is at least £40,000, and more will be required if the work is to be extended. Dr. Mawson is now in London, making provisional arrangements for a suitable ship and equipment, and he cables most encouraging accounts of his progress.

—Finance.—

The Government of the Commonwealth has been asked to guarantee half the cost, and the Cabinet has decided to submit the question to Parliament. Ministers have expressed great interest in and sympathy with the project; and, as the Leader of the Opposition has done the same, there is no doubt that a large subsidy will be obtained. But it is emphatically not a case for Government action only, but one to which wealthy and public-spirited citizens may be expected to wish to contribute. The Australasian Association has shown its appreciation of the scheme by contributing £1,000, which is about one-third of its total capital; and a similar sum has been generously promised already by each of the following:—Messrs. R. Barr Smith (Adelaide), R. Murchison (Melbourne), Hugh Dixon, H. R. Denison, and S. Hordern (Sydney). So far, however, no general appeal has been made. We feel sure that there are many others who will take an interest in the scheme for scientific, practical, or purely patriotic reasons, and who both can and will subscribe. We also believe that many manufacturing firms in Australasia, following English tradition, will gladly contribute gifts of stores, and all such will be welcome. Friends who desire to help in any way are asked to intimate their wish through the press or to communicate with one of us, and they are asked to do so as soon as possible, as there is no time for delay if the expedition is to sail this year. We appeal with confidence to Australians to support this national expedition for the exploration of that part of the antarctic continent which belongs geographically to Australasia. Signed on behalf of the Australasian Antarctic Committee, ORME MASSON (University of Melbourne), T. W. EDGEWORTH DAVID (University of Sydney), GEO. C. HENDERSON (University of Adelaide).

Advertiser, April 21/12.

ANTARCTIC EXPEDITION.

AN AUSTRALIAN PROJECT.

APPEAL FOR SUPPORT.

To the Editor.

Sir—The attention of the public has been called to this subject by accounts in the press of discussions at the Sydney meeting of the Australasian Association for the Advancement of Science, and more recently by the publication of paragraphs and cablegrams bearing more or less directly on the question. We find, however, that many are still insufficiently informed as to the exact objects of the scheme, and its history and present position; and, as we have to appeal to the more wealthy of Australasia's citizens for that liberal support without which the scheme will certainly fail, we shall be grateful if you will find space for this letter in your columns.

Due south of Australia, and less than 2,000 miles from our shores, lies the long coastline of that part of the great Antarctic continent which has been called its Australian Quadrant. This begins near Cape Adare, the north-western boundary of Ross Sea, and extends thence for over 2,000 miles to the west, in latitudes from 70 deg. to 65 deg. S., until it terminates near Gaussberg in territory already appropriated by Germany. Much of this coastline lies close to, or even outside, the Antarctic circle; in other words, in a latitude corresponding to that of the north of Iceland in Europe or of part of the Yukon valley in Alaska. It bounds, in fact, the most northerly lands of Antarctica, with the exception of the out-jutting portion of Graham Land, to the south of Cape Horn. In all probability, its climate, though severe, is quite compatible with permanent occupation by man, and is greatly superior to that encountered by Shackleton and other explorers in much higher latitudes. In summer, the rock-bound coast is probably to a large extent free from ice, and quite approachable. The distance from Australia at the nearest points is about equal to that between Melbourne and Perth. The original discoverer was the French navigator, Dumont d'Urville, who sailed from Hobart early in January, 1840, and was back there in seven weeks, having sailed along some hundreds of miles of the coast, landed a party, and named the part still known as Adelie Land. None since then have effected a landing there; few have even sighted the coast; yet it is one of the most interesting fields for exploration that remain.

During the last few years the interest in Antarctic work has grown and spread, and at the present time England, Scotland, Germany, France, Norway, the United States, and Japan are all contributing, or likely to contribute, expeditions. Some of these have for their chief object the conquest of the Pole itself; others appear to be organized mainly for commercial purposes; while others go in the cause of science, to add to our knowledge of the earth. All, probably, are actuated in part by the wish to add honor to their country's name. But, in this friendly international contest, the coast of the Australasian quadrant has so far been left untouched; for it is felt by others that Sir E. Shackleton established a claim to further work in that direction when one of his sledge parties sought and found the South Magnetic Pole, inland from and between Cape Adare and Adelie Land. Of that small party two were Australasian scientists; and, now that Shackleton finds himself unable to lead another expedition, it is to one of these, Dr. Douglas Mawson, of the University of Adelaide, that he hands over his rights, and expresses the hope that he may succeed in organizing a truly Australian expedition.

To explain fully the objects to be served by this expedition would occupy too much space. The following summary must suffice. In the first place, there is no purely sporting element in the project; the race for the South Pole is left to Captain Scott and Captain Amundsen. The main objects are to survey and map as much as possible of the coast between Cape Adare and Gaussberg; to investigate its geology and mineralogy; to study glaciers and ice formation; to make systematic magnetic observations, especially in the neighbourhood of the Magnetic Pole; to obtain a continuous meteorological record and test the desirability of establishing a permanent meteorological observatory in those parts; to investigate the fauna of a sea that abounds in life. The scientific problems suggested in this short summary are numerous and of the greatest importance, and there are others. But the list also shows that Australasia may expect results of practical value, apart from pure science, in return for the expenditure incurred. Two thousand miles of unexplored rocky coast means mineral potentialities that may perhaps prove worth realizing; and, if so, the task would be less formidable than the exploiting of the goldfields of Alaska. A sea known to abound in seals and whales of various kinds holds out hopes of valuable fisheries, especially when it is remembered that at one time on the South American side of Antarctica the trades in oil and furs gave rich returns till they were pursued to the point of extinction. But the most probable source of profit to Australia lies in the meteorological work, for it is from the icy regions to the west of south that we may look for an extension of our knowledge of Australia's weather and of our power of forecasting it; and who shall estimate the value of such knowledge in a country like ours?

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The estimated cost of the scheme is at least £40,000, and more will be required if the work is to be extended. Dr. Mawson is now in London, making provisional arrangements for a suitable ship and equipment, and he cables most encouraging accounts of his progress. The Government of the Commonwealth has been asked to guarantee half the cost, and the Cabinet has decided to submit the question to Parliament. Ministers have expressed great interest in and sympathy with the project; and, as the leader of the Opposition has done the same, there is no doubt that a large subsidy will be obtained. But it is emphatically not a case for Government action only, but one to which wealthy and public-spirited citizens may be expected to wish to contribute. The Australasian Association has shown its appreciation of the scheme by contributing £1,000, which is about one-third of its total capital; and

Advertiser, April 22/11

Register, April 24/11.

THE ANTARCTIC.

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Gradually the obstacles in the path of Dr. Mawson's projected antarctic expedition seem to be satisfactorily clearing away. Some time ago there was a doubt whether its leader might not be encroaching upon Sir Ernest Shackleton's preserves, but all misgiving on that point has been removed by the intrepid explorer himself, who has definitely and handsomely given his blessing to Dr. Mawson's undertaking, and vigorously appealed to the public to support it with their confidence and their money. Regarding the fitness of Dr. Mawson for the task to which he has addressed himself, there need be no question. He has served faithfully, zealously and successfully under Shackleton; he is able and adaptable, with power to command as well as to obey; and—gratifying consideration from the Australian standpoint—he has in large measure derived his education from Australia. Thus far, good. The men are ready for their work, and fully capable of doing it; and the work ought to be done.

Concerning the exact reasons which justify this conclusion ample information to convince even the most sceptical is given in *The Register* to-day. It is sufficient to refer any doubter to the report of the interview with Professor Henderson, and to the letter signed by him and Professors Masson and David, as joint representatives of scientific bodies specially interested in the movement towards further scientific investigation of the antarctic regions which are so near—not much more than the distance from Adelaide to Port Darwin—and yet so far from Australians. To attempt to add to the appeal embodied in that letter would be superfluous, for the document concisely and powerfully sets out facts and speculations. Equally suggestive in a pithy way is Professor Henderson's reference to the purely national aspect of a project which tends to broaden the ideals and aspirations of Australians, and thus to introduce into their lives influences which will react upon them in many directions, and make them in the mental and moral senses bigger men and women than they would be if their horizon were always bounded by their own geographical parallels of latitude and longitude. A realization of this complexion of the enterprise should inspire to liberality men who wish to encourage legitimate ambitions towards Australian nationhood. It ought also to have a serious effect upon the deliberations of federal legislators in relation to the proposed expedition.

This is more important in some respects than even the probability—as shown by the manifesto printed in *The Register* to-day—that eventually such judicious antarctic explorations as that contemplated will pay on a basis of pounds, shillings, and pence. For example, if—as appears to be likely, through the work of the expedition—our meteorologists, with data from the snowclad Himalayas on the one hand, and the icefields of Antarctica on the other, could issue trustworthy seasonal weather forecasts, incalculable benefits might be conferred upon the producing interests of Australia. The scheme cannot fairly be decried as a scientific fad, or as one having in it anything visionary or unpractical. It is thoroughly sane and solid, and businesslike. It may as appropriately be promoted by the Chamber of Commerce, and the Chamber of Manufactures, shipowners' societies, and the **Australian Natives' Association, as by the Association for the Advancement of Science** (which has voted one-third of its total funds to the Mawson expedition), the Royal Society, and the Royal Geographical Society. One may therefore take it for granted that the promoters of the expedition will widen so far as may be possible, the bounds of their administrative body so as to reflect the cosmopolitan nature of the undertaking.

THE ANTARCTIC.

DR. MAWSON'S EXPEDITION.

AEROPLANE TO BE USED.

LONDON, May 1.

The Danish Government is purchasing 50 Greenland dogs in behalf of Dr. Mawson, who will lead an expedition to the south polar regions this year. The animals will be shipped direct to Australia, and the explorer will pick them up when his antarctic vessel arrives in Commonwealth waters.

Following the statement made a few days ago by Commander Peary that all future successful polar exploration would be carried on by means of aeroplanes, comes the interesting intelligence that the young South Australian leader will be the first to make such use of the perfected flying machine. Dr. Mawson intends to include an aeroplane in his equipment. It has been specially selected by the famous British aviator, Mr. Grahame-White, who is arranging all details.

CAPT. SCOTT'S EXPEDITION.

PRETORIA, May 2.

Including the grant by the Union Government, South Africa has subscribed a total amount of £1,274 to the British expedition now in the Antarctic in command of Capt. Scott.

THE GERMAN EXPEDITION.

TO SAIL SHORTLY.

HAMBURG, May 2.

Prince Henry of Prussia, the Kaiser's brother, yesterday inspected the vessel by which the expedition under the command of the Bavarian explorer, Lieut. Filchner, is about to sail for the Antarctic. Prince Henry was greatly impressed with the equipment of the expedition. Supplies will be taken to cover a period of three and a half years. Lieut. Filchner some time ago purchased a Norwegian sealing vessel, which has been fitted out for the trip, and in addition to the ship's officers and crew he will have with him a staff of about a dozen scientific experts.

The expedition will sail for Buenos Ayres on May 7. From the Argentine port it will proceed at the beginning of October via South Georgia and the Sandwich Islands to the Weddell Sea. The route has been chosen so as to allow of oceanographical research on the way. On arrival in the Weddell Sea it is proposed to establish a base station on the eastern coast as far south as possible, with the necessary equipment for a year's research. A party of 10 men will be landed, of whom six—a geologist, a meteorologist, an astronomer, a doctor who is also a biologist, a cook, and a sailor—will stay in the station, while the remaining four will undertake a long sledge expedition into the interior of the South Polar continent. Meanwhile the ship will return to the Atlantic Ocean to carry out coastal observations and oceanographical work.

The main geographical objects of the expedition are to determine the distribution of land and water, to establish the coastline of the Antarctic continent, and to study the conformation and direction of the ice. On the oceanographical side it is proposed to make systematic observations of the temperature, the saltness, and the oxygenation of the deep levels along certain lines in the Sargasso Sea, in the Brazilian current, and in the high latitudes. Soundings will be taken on the Atlantic swell between latitudes zero and 10 N., where none such are at present available. Further soundings will be made in the Argentine basin and further south. Observations with regard to ocean currents will be carried out from an anchored boat. The meteorological section of the expedition is fully equipped with apparatus for registering air pressure, temperature, moisture, and wind, and magnetic observations will be made both at the base station and on the sledging expedition.

Prince Henry of Prussia, presiding at a meeting in connection with the expedition

tion, or for preference, the reputation of Sir George Darwin's guess that the great bay 300 miles long, at the entrance to which the Norwegian and perhaps the Japanese expeditions are now encamped, runs right across the antarctic circle, skirting on its way the south pole. As an old believer in motor sleighs, he entertains great hopes of Capt. Scott's successful employment of these contrivances in penetrating to the heart of a continent as large as Europe and Australia combined. The powerful appeal made by this mysterious continent to the imagination of every person is only enhanced by a perusal of Dr. Bruce's pages (says The London Evening Standard). Capt. Scott is in a country with a past, a most distinguished past, scientifically speaking, for he has time it enjoyed a temperate if not sub-tropical climate. Even now there is this fascination about the climate, that it is the healthiest on the face of the earth. No germs are there. Cold, rheumatism, infectious fevers, are practically unknown. Add to this such glorious effects of sun-coloured atmosphere as the tongue of man is unable to utter, and it becomes evident that exploration in the frozen south has compensations that we can only faintly grasp.

THE EXPLORERS' CHANCES.

The Paris Matin publishes the report of an interview with the well-known polar explorer, Dr. Charcot, on the subject of the supposed race for the south pole between the Scott and Amundsen expeditions. Dr. Charcot expressed his regret at anything like open rivalry in the matter, but, in the circumstances, remarked that most must necessarily depend on the daring and scientific capability of the respective leaders. "Capt. Scott's route," he said, "has already been to a large extent marked out by Lieut. Shackleton, and though it is perhaps the longer way, this is an immense advantage, as Amundsen has only the unknown to face. Again, the route which Scott is adopting is known to be frequented by the penguins, and this means an invaluable resource in the event of an outbreak of scurvy, which Amundsen will lack. If Amundsen alone had undertaken the task I should have had hopes of his success, but it is to those who discovered the Ross Sea, and who by infinite efforts succeeded in penetrating by this means to the very heart of the antarctic that victory would appear to be promised. It is to be hoped," added Dr. Charcot, "that the discovery of the south pole will now be accomplished once and for all, and that the valuable work of such expeditions as those of the Japanese and of Dr. Mawson may in future be directed to the study of other portions of this mysterious continent."

GOVERNMENT AID AGAIN SOUGHT.

MELBOURNE, May 2.

A deputation, composed of the Lord Mayor of Melbourne, Professor Masson, of the Melbourne University, and Mr. H. A. Hunt (Commonwealth Meteorologist), to-day asked the Acting Prime Minister (Mr. Hughes) to make the position of the Commonwealth Government a little more definite regarding its proposed contribution towards the expenses of the antarctic exploratory expedition under Dr. Mawson. Professor Masson said they wanted some further encouragement in regard to the expedition. In March a deputation asked Mr. Batchelor to guarantee £20,000, which would be half the total estimated expenses. Mr. Batchelor seemed to say that the amount asked for was too high, but he promised to lay the matter before Cabinet, and give the deputation a reply the first week in April. It was subsequently announced in the press that Cabinet had resolved to let Parliament decide the matter. Dr. Mawson had since cabled from London stating that he wanted the immediate command of £10,000. The subscriptions promised by the public until the present totalled only £6,000 or £7,000, and the deputation to-day wanted a more definite statement of the attitude of the Government.

Mr. Hughes asked what might the Commonwealth hope for by way of return, either in the scientific result or quasi-commercial enterprises.

Professor Masson said the expedition proposed to investigate 2,000 miles of unknown rocky formation, and mineral finds of great value might be made. Chiefly, however, the object of the expedition was scientific.

Mr. Hunt said in regard to meteorology the expedition would do work of the highest value to Australia. The south polar regions probably held the secret of the Australian weather conditions.

Mr. Hughes said he had not the slightest doubt that the chief material advantage to Australia would result from the meteorological data. He thought the expedition should be looked at from its scientific standpoint.

Professor Masson—Still, it is not unlikely that valuable minerals will be found

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