

mere love of the work, there are many investigators of whom little is heard in the ordinary way. Students in university or college classes and the audiences at extension lectures may gain some information from them, but beyond an occasional newspaper report the public knows nothing of what is going on. Yet in scores of laboratories, and by hundreds who are exploring hidden paths, new facts and fresh applications of scientific truth are being brought to light. Progress is recorded all along the line when the time arrives for anything like a collective report such as the Congress furnishes. It is obviously to the general advantage that those who are thus employed should occasionally meet on common ground if for no other reason than that of improving their mutual acquaintance, and thereby perhaps stimulating their common emulation. There is not, and there cannot be, in scientific enquiry either uniformity of method or unanimity of judgment. The various tracks to be followed appeal differently to different minds, and the self-same phenomena may be diversely interpreted. The one object being exactitude in the attainment and expression of truth, direct intercourse and free discussion suggest themselves as invaluable aids to its achievement. The period which can be devoted to this purpose is of necessity extremely limited, but within the compass of a single week those who are like-minded may find time for comparing impressions, plans, and observations. This may be regarded as incidental, the main concern being with the addresses delivered, papers read, and discussions upon them; but the resulting benefits do not end even there. By the division of the Congress into several sections a wider field is covered than would be possible in the time without such an arrangement, and at the close of the proceedings the material submitted will be gathered up, carefully edited, and published in a cyclopedic volume for more leisurely consumption. This will be an addition to Australian scientific literature of no mean importance.

One result of the Congress, therefore, will be a permanent record of current scientific thought in Australia which will acquire increasing interest as time goes on. It will necessarily be miscellaneous in character, but the answer to complaints on that score is in the subjects themselves and not in their selection or treatment. The scope is so wide that no one can be an expert in everything, and the scientific enquirer is therefore liable to undervalue departments in which he is not directly interested. An astronomer may perhaps feel himself above paying attention to such matters as the composition of bread or the relation of chemistry to the exportation of frozen meat, while the latter subjects will probably commend themselves to a wide circle as of superior practical importance to studies of the heavens. A geologist who turns to an account of the Jenolan caves, or the relation of certain ore-bodies to the adjacent rocks, will possibly skip references to Australian aborigines in the anthropological section, though this theme has permanent interest for students of human nature and its history. Many Australians will eagerly look for Dr. Mawson's paper on Antarctica, not only on account of his experience in Sir Ernest Shackleton's expedition and his connection with the Adelaide University, but also because of his forthcoming journey to the South Polar regions. Those who consider that an Australian Association should deal principally with local affairs may be fairly well satisfied with the programme, which includes references to many of our most pressing problems. Primary industries—mineral, pastoral, and agricultural—have their place. The Australian physique, the combat with disease, and the development of hygiene will come under consideration. Besides these and other features, the Congress will have as a special duty the arrangements for the next meeting of the British Association, which will be held in Australia, and will be an event of exceptional importance to the whole of the Commonwealth.

THE ANTARCTIC.

THE AUSTRALASIAN EXPEDITION.

DR. MAWSON INTERVIEWED.

Sydney, January 8.

Dr. Mawson, who arrived from Adelaide yesterday to attend the Science Congress, will probably lead his Antarctic expedition south from Melbourne in about November of this year. Its objects will be scientific and economic. It will make no dash for the Pole, but explore the 2,400 miles of coastline between Cape Adare and Gauss Berg Point, in Kaiser Wilhelm Land, at which the German expedition wintered. Its work is expected to fill in the gaps between the Shackleton and Gauss expeditions.

"At the Science Congress," said Dr. Mawson, "a committee is to be formed to help on the expedition and to make all the necessary arrangements for the carrying out of its scientific work. I am going to London at the end of the week to clinch arrangements on that side. The selection of the staff is to be left in the hands of the committee. Professor David is not going. The expedition will start from Melbourne, the point arrived at being due south of it, and its main Antarctic base is to be in Adele Land. There will be other bases along the coastline and inland, and exploring trips will be made by sledge and motor. The area to be covered will be within range (at night) of wireless telegraphy from the Bluff, New Zealand."

Australian geological and zoological problems are expected to be solved, and Dr. Mawson says it is possible that rich ore deposits may be found. The problem of connection between Australia, South Africa, and South America, and Antarctica will be further investigated. A good deal of new mapping work will be done, and meteorological and other observations will supplement those of the Scott expedition.

"What about this reported Japanese expedition?" Dr. Mawson was asked.

"The ground was secured for us by Sir Ernest Shackleton's announcement in March," said Dr. Mawson. "It's a matter of international etiquette not to get in ahead in such cases, but we hear the Japanese are on their way south. I am wondering whether they're contravening this international rule. It seems from reports that their equipment is quite inadequate for a polar expedition. It may be that their object is really to exploit the seal oil and pelt industry of the south. There seems to be a good deal to be made out of it. The Japanese control already the herring and seal oil industry in Behring Strait. Seeing that Australians have taken no interest in the southern industry, the Japanese may very likely be going down without saying much to find out about it. They ought to be in Sydney soon. They left Japan some time ago."

Dr. Mawson's expedition will probably be in the south for two years.

ANTARCTICA.

LECTURE BY DR. MAWSON.

SYDNEY, January 11.

"Antarctica" was the subject of an interesting historical paper read by Dr. Mawson, of Adelaide, at the Science Congress to-day, in connection with his appeal on behalf of the proposed Australian expedition to the south polar regions. He traced the history of polar discovery in the southern hemisphere from 1531, the date of the publication of the hypothetical map of Orantius Finne, and he adopted a rather ingenious idea to illustrate the gradual spread of knowledge concerning Antarctica. Over a map showing the Antarctica regions as they are known to-day, he had tacked a sheet of paper perforated in sections. As each fresh discovery was announced he ripped a section of the paper off the map with his stick, revealing a new-found strip of sea or land, as the case might be. In concluding his review Dr. Mawson said—"A number of expeditions are now declared to be preparing for onslaughts upon the antarctic regions. These include (1) Scottish national expedition, under Dr. Bruce, to prosecute oceanographic work in the Southern Atlantic, and to investigate the land between Coats Land and Enderby Land; (2) a German expedition, under Lieut. Phitzner, to the region between Graham's Land and Coats Land; (3) a Japanese expedition to that part south of the Pacific Ocean (this expedition is said to have left Japan; but details of its intentions are shrouded in mystery); (4) lately another expedition has been reported as preparing for work upon the icy seas between Alexander Island and King Edward Land; (5) an Australian expedition to explore the antarctic continent between Cape Adare and Gauss Berg." Though touched upon as early as 1820 only six or seven expeditions, he went on to say, ever came within sight of land until during the last 15 years. It was not until 1898 that the antarctic winter had been experienced, and the contributors of various expeditions referred only to isolated spots of 8,000 miles of coastline. The passive condition of Australian enterprise respecting the potentialities of the antarctic continent was really due to lack of public knowledge relating thereto.

THE ANTARCTIC.

THE AUSTRALASIAN EXPEDITION.

ADDRESS BY DR. MAWSON.

Sydney, January 11.

When Dr. Mawson (Adelaide) at the Science Congress to-day spoke of Captain Scott's present expedition there was a neat touch which appealed to the humor and interest of everybody. He had omitted to say a word about the famous exploits of Shackleton. "Oh," said he, amid laughter, turning back as if suddenly recollecting something very casually, "I had forgotten Shackleton." Reaching up, he tore off a map a long strip right into the heart of the white waste of paper. It showed at a glance the famous dash to a spot nearer the South Pole than had ever been previously attained. The chief part of the address came at the end, when Dr. Mawson spoke of his own projected expedition. He made it clear that its object is not to reach the South Pole, but to explore in the interests of science the great Antarctic continent between Cape Odare and Gaussberg. For many years expeditions from Australia had been contemplated, but never realised. Australian support had, nevertheless, from time to time, greatly aided British exploration in Australian Antarctica. It was not, however, that the spirit of enterprise was lacking. The apparent apathy was due to the unfamiliar conditions of the Antarctic, and the absence until recently of reliable data relating thereto.

"Australians are just as well fitted constitutionally to stand the rigorous conditions of life in high latitudes as are people originating from colder climates," said he. "Cagnu, the Italian, beat Nansen on his own ground, and Hensen, a negro, accompanied Peary to the North Pole. The Australian contingent accompanying Sir Ernest Shackleton on his recent expedition showed what could be done by Australians with no previous experience of polar

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