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MUSIC TEACHERS' ASSOCIATION.

LECTURE BY PROFESSOR KERR GRANT.

The thirty-third general meeting of the South Australian Music Teachers' Association was held on Saturday evening in the Prince of Wales Theatre, Adelaide University. Dr. Harold Davies presided over a good attendance. Five new members were elected, and several nominations were received. It was announced that the July meeting would be devoted to open discussion of matters of general interest, including "minimum fees for teaching." The articles and rules of the association would be subjected to thorough revision, one result of which would be that membership would become more exclusive.

Acting Professor Kerr Grant delivered a lecture on "Modes of production of musical sounds." He remarked that science and art were sometimes considered to be antagonistic, but this was not so; they stood not face to face, but advanced hand in hand. Each owed much to the other, and one method by which science could in part repay the immense debt which it owed to art was by providing new materials and new tools for the artist. It was possible that in some of the recently discovered methods of production of musical sounds to be shown that evening, musicians of the future might find means to accomplish still greater effects than had hitherto been possible. The professor briefly explained the physical nature of sound and its mode of transmission, and showed that the difference between musical and unmusical sounds consisted in the rhythmical character of the impulses which produced the former. Such rhythmical impulses were producible by purely mechanical means, for example, the shrill scream of a circular saw, or the soft hum of an insect's wings; but the vast majority of sounds, and especially of those employed in music, owed their origin to elastic vibrations. The characteristics and laws of vibratory motion were explained and illustrated by reference to the pendulum, both simple and compound, and the physical bases of the pitch, loudness, and quality of musical sounds were assigned to the rapidity, amplitude, and complexity of the vibrations which produced them. The different types of elastic vibrators, strings, rods, air columns, and plates were exhibited and explained. Several experiments illustrating the effect of heat in maintaining the vibration of air in pipes were shown. A "sensitive flame" shrieked at the word of command, and was so "put out" at the laughter of the audience as to be extinguished. The lecturer demonstrated that a stream of water issues from a fine nozzle not uniformly but in a regular series of spurts, and could be utilized to produce a musical note, and also to cause intense magnification of any sound communicated to the nozzle. Closely allied to this mode of sound production was the very curious method shown in the flow of coarse-grained sand out of a long vertical tube. "Musical sands," which uttered a deep note when disturbed, were known in various parts of the world, and the shrill squeak of dry snow when trodden upon was probably an allied phenomenon. An exhibition of the "singing-arc," discovered by the English physicist Duddell, and applied recently by a Danish engineer named Poulsen to the production of electrical waves for wireless telegraphy, concluded the long list of interesting experiments. At the instance of the secretary (Mr. Ernest E. Mitchell) the professor was heartily thanked for his lucid and delightful lecture.

TO THE SOUTH LAND

DR. MAWSON INTERVIEWED.

'AN AUSTRALIAN EXPEDITION.

Sydney, June 13.

Among the passengers by the R.M.S. Makura, which arrived from Vancouver today, was Dr. Douglas Mawson, who was a member of the recent Shackleton Antarctic expedition. He has just concluded a seven months' trip round the world, and in a few days will return to Adelaide to take up his duties as lecturer on geology at the University. The doctor has, however, no intention of settling down just yet to the routine of University work. The call of the Antarctic is in his blood, and by this time next year he hopes to be once more steaming south. It is no mere hunt for the Pole that Dr. Mawson has in view. What he aims at is scientific exploration of the great unknown coastline that lies directly south of Australia. Between Cape Adare and Gauss Berg there is a length of 2,400 miles of coastline which, so far as is known, has only been touched once, and that 70 years ago by a French expedition under Dourmont Duviville. The exploration of this unknown territory will be the first objective of the Australian expedition of 1911. The history of the new proposal is thus related by Dr. Mawson:—

"As soon as I arrived in London I had to decide whether I should join Scott's expedition to the South Pole. Captain Scott made me a very good offer, but after mature consideration I decided not to go. Since becoming acquainted with the Antarctic I have realised that the part most deserving of scientific exploration is that great length of coastline south of Australia. The comprehensive character of Captain Scott's programme would not allow of the detailed scientific exploration of this long stretch of unknown coastline. I began to wonder if I could do anything to explore this part of Antarctica myself. Sir Ernest Shackleton, however, no sooner heard of my views than he enthusiastically undertook to make the necessary arrangements for such an expedition. He purposed taking charge of the expedition himself, and I am to be director of the scientific work. Should the plans mature it is expected that a start will be made about this time next year. It is intended to make the expedition Australian. A couple of Australians in London promised £11,000 towards the cost of fitting out the expedition, and on his return from America Sir Ernest Shackleton will proceed to raise the necessary capital of between £20,000 and £40,000."

Dr. Mawson is hopeful that Australians will contribute all the money required. "There is no part of Antarctica," he says, "that contains greater potentialities in scientific research than the area I have referred to. These would include possible mineral wealth, whale or seal oil, &c. The purely scientific results of the expedition should be of the highest value. Stations would be made close to the magnetic pole so as to make more definite and final the work which Australia already has the credit of achieving. The meteorological results, too, would have special value. It is within this Antarctic coast line, and not in the areas visited by previous expeditions, that we should expect the Commonwealth Government, if they ever ventured so far, to erect a wireless station for advising Australian stations of changes in the weather conditions. Altogether it is believed that if things go right and the necessary money is forthcoming the scientific material to be collected by this expedition will outclass that of any previous undertaking of the kind."

BRISBANE UNIVERSITY.

PRAISED FOR LIBERALITY.

LONDON, June 14.

The "Globe," a London evening paper, comments favorably on the liberality of the salaries offered for the professorships, for which applications are now being called in Great Britain. The writer commends the establishment of classical professorships in "a country where utilitarian aims are generally supposed to be supreme."

Advertiser, June 16th 1910.

BRITISH SCIENCE ASSOCIATION.

PROPOSED VISIT TO AUSTRALIA.

FEDERAL ASSISTANCE SOUGHT.

On Wednesday afternoon representatives of the South Australian branch of the Australian Association for the Advancement of Science waited on the Minister of External Affairs (Hon. E. L. Batchelor) and asked for Federal assistance in arranging for the next congress of the British Association for the Advancement of Science to be held in Australia.

Senator Vardon, who introduced the deputation, said the request was placed before the then Prime Minister (Mr. Deakin) last year. They were confident that the proposed visit of the Association for the Advancement of Science would do a great deal of good in Australia. The whole world was indebted to scientific research and investigation. In 1905 a conference was held in Canada, and later on in South Africa, and it was thought desirable that such a gathering should be held in Australia. The Commonwealth was important enough to justify the visit. Not long ago they had had a conference of the Associated Chambers of Commerce, and as the gentlemen who would come to Australia for the Scientific Congress would have no personal ends to serve it was only reasonable to expect that the Commonwealth should bear part of the expense. The object of the conference was purely the diffusion of information. They were represented in that request by the whole of the scientific societies of Australia, and they were asking that the Commonwealth should make a contribution of £10,000 for the object referred to.

Professor E. C. Stirling stated that although the personnel of the deputation was small they represented every man in the State who was either engaged in scientific work or had the interests of scientific research at heart. In asking for practical assistance in the form of a monetary grant, the first question of the Federal Government would probably be—"What is to come out of it?" He had to admit that it was impossible for them to say that anything definite or profitable would come out of the matter, just as it would have been impossible to foretell the benefits that had been derived as a result of the experiments which led to great scientific discoveries, such as electricity. They could not promise that the holding of the British Congress in Australia would bring profit of a material kind to the Commonwealth, but they could say without fear of contradiction that the presence of the most eminent scientists of the Empire would be an immense stimulus to scientific research under the Southern Cross. In all their industries and agriculture, no matter in what direction they looked, it was by the extension of scientific principles that they gained improvement, and, in many ways, profit. Australia lay a long way off the active centres of scientific work, and in that respect they labored under particular disadvantages, but a congress of leading scientists of the world would give a great fillip to research and indirectly lead to some benefit to the nation. Such had been the experience of Canada and South Africa.

Professor Rennie emphasised the stimulus to scientific research which the visit of the British delegates would give to the workers in Australia. It was possible that, by direct conference with the scientists referred to, some practical ideas might be obtained. Of course, they could read their works, but that was altogether different from coming into actual contact with the men themselves, and, besides, those scientists would get a much better idea of Australia as a whole.