performer, and how we wondered, with something like wicked anticipation, what all the people underneath would look like if it fell down upon them. Fortunately the City Fathers wondered the same thing and removed the chandelier.

As to the reading of the programme in the dark, is it necessary? Theatre patrons must read their programmes before the lights go down or during the intervals. If concert patrons would be in their seats 10 minutes before the concert opens they would have ample time to read their programmes in advance, and so save a good deal of rustling during the items. Without advocating the wholesale use of dim lights in concert halls there are occasions where it is distinctly advantageous.

Opera for Pirie

It is understood that the South Australian Opera Company, under the direction of Count Filippini, will shortly make a visit to Port Pirie, where it is to appear at the Alhambra Theatre in a season of Grand Opera. The company will include the soloists and a picked chorus, and the operas to be performed are "Il Trovatore," "Rigoletto," "Pagliacci," and "Cavalleria Rusticana."

Revived Folk Songs

There is a strong move on the part of British speaking people to resuscitate the old folk songs, which played such an important part in the lives of our forbears. In this connection the late Mr. Cecil Sharp, one time partner with Mr. I. G. Reimann in the old College of Music, in Wakefield street, has played an important part, collecting hundreds of the old folk songs and dance themes for posterity.

It is noteworthy that some of the oldest songs which have remained in their primitive simplicity have been found in America, in the country towns of Virginia and places where the pilgrim fathers left the impression of their British ancestry, being the most productive of these historic songs.

Adelaide is not to be behind the times in recognising the value of these simple, and frequently charming songs and dance measures, and a move has been set on foot by Mrs. Charles Todd, president of the Girls Club, with the co-operation of other enthusiasts, to form a society for their performance. Mr. Carey, who has previously demonstrated his knowledge and interest in this class of work, will be an active participant in the scheme, and it is hoped, later, to introduce it into schools, clubs for young people, and in other directions. The folk song-and-dance was the forerunner of the ballet as it is known in England, and which still maintains many of its leading characteristics.

Organ Recital

On Thursday the fourth free organ recital in the Conservatorium Hall by Dr. E. Harold Davies attracted a large attendance of business men and others. Dr. Davies played the Rheinberger Pastoral Sonata, built on an ecclesiastical theme; a delightful "Chanson Triste" by Tschaikowsky, and a Gothic Suite by Boellmann. Miss Hilda Gill sang Bemberg's "Chant Indiue." The recitals, which comprise six in all, are being much appreciated.

REG. 21.6.26

SIR WILLIAM BRAGG.

Days of His Youth.

Sir William Bragg, who has become so popular with South Australians during his stay in Adelaide as Professor of Mathematics and Physics, recalls in T. P.'s and Cassell's Weekly, some of the outstanding events of his early days. "As a very small boy," he says, "I went to the school in the Cumberland parish of which my grandfather was vicar. My father had been to sea for many years, but had settled down to farming. After a year or two there, I was sent to the grammar school at Market Harborough. It is one of my vivid memories of that time that the head master used to read out each morning the telegrams from the Franco-German war. Six years later I went to King William's College, in the Isle of Man, where I had the good fortune to be under a really good mathematical master, D. D. Jenkins by name, who decided my leanings towards mathematics, though in those days classical subjects filled the greater part of the time table.

"In 1881 I went as an exhibitioner to Trinity College, Cambridge, and set myself to work hard for the mathematical tripos. I came out Third Wrangler.

The Adelaide Professorship.

"Then came an incident which may interest my readers. I was walking along the King's parade one morning with the present Master of Trinity; he was on his way to give a lecture and I on my way to hear it. He asked me if the Senior Wrangler of my year was in for the vacant professorship in mathematics and physics in the University of Adelaide. I said that to the best of my belief he was not. But the question set me thinking. It would not have been asked unless the Senior Wrangler in question was an eligible candidate, and if he was, and was not applying, I might have a chance. I knew no physics, it was true, but then I knew the other had not had any laboratory experience. So the moment the lecture was over I telegraphed an application to the Agent-General in London. In a few days I was sent for, and in three weeks I was on board the old Rome, 4,500 tons, the leading ship of the P. and O. The voyage was great fun. Of course, I had to learn some physics on the way; I was going to be Professor of Mathematics and Physics, and however much my degree qualified me to teach the former, the latter was very much an unknown world. In Adelaide it turned out that there was only one elementary class of respectable numbers and a little class of two students who were rather more advanced; and I managed to keep in front. Sometimes I had queer experiences. There was so much to do in the two subjects that I did not always have the time to rehearse before the lecture the experiments which the laboratory assistant had prepared. But my trust in the reliability of physical laws was always justified. On one humiliating occasion I asked the assistant if he could get me some sodium chloride for an experiment, only to discover a little later that the substance was common salt.

Radium.

"For 17 years I worked steadily in Adelaide. Then came another crisis. It had never entered my head that I should do any research work. I was to give the presidential address to Section A of the Australasian Association for the Advancement of Science; the meeting was in Dunedin, New Zealand, in January, 1903. I thought that I could make an interesting address if I spoke of the recently discovered electron and of the phenomena of radioactivity. While reading up the subject, I came across some results described by Mme Curie which seemed to me capable of only one interpretation, and that an interpretation which had not yet been suggested. It was known that when the radium atom broke up into two parts, one large and one small, the latter, which was really at atom of helium, was driven into the surrounding air, and these particles constituted what was called the 'alpha' radiation. Mme Curie described experiments which implied that all the alpha particles thus expelled went about the same distance.

"This interested me extremely. All ordinary radiations fade away gradually with distance; the alpha particles seemed to behave like bullets fired into a block of wood. But, if this were so, the particle must travel in a straight line through the air, as the bullet does through the block. Now, some hundreds of thousands of air atoms would necessarily be met with on its journey. How did it get past? It could not push them to one side, for it was smaller than they, and the simplest experiment on the billiard table shows that a ball will not go straight through a crowd of others, however hard it is hit. It could not dodge from side to side, continually recovering its original direction; that would require that the particle should be possessed of intelligence.

"There was only one answer to the problem. The particle must go through the air atoms that it met. There must be a moment when two atoms, the alpha particle and the atom being crossed, occupied the same space. This was contrary to all the teachings that I knew. Still, it seemed to be right; and, as a matter of fact, it was right. So I gave my address at Dunedin, and explained this point in the course of it. I had never tested the hypothesis by any experiment, for I had no chance of making a test. I had no radium.

A Local Maecenas.

"When I got back to Adelaide I was given the funds for the purchase of a small quantity by Mr. Barr Smith, a Maecenas who often befriended scientific work, and so I was able to try my special experiment, and all went well. Indeed, many other results came tumbling out, all of which fitted in with the new radioactivity discoveries made by Rutherford in Canada. I found that helium atoms of four different "ranges," as I called them, were shot out from the radium preparation, which must belong to the four different active substances that Rutherford had shown to exist.

"Then I got a hint from Professor Soddy, who was passing through Adelaide, that I should dissolve the preparation in water, which would wash away three of the active substances but leave radium itself, the parent of them all. So I did, but, horror of horrors, as I brought my measuring apparatus up towards the radium in the way I had learnt to do, there was no radiation at all when I was well within the old range. However, with a very downcast spirit, I pushed the apparatus closer still, and closer; and suddenly a tremendous effect flashed out. The radium itself sent out the particles of the shortest of the four ranges, not the longest, as I had thought; and, free from overlying impurities, was shooting with great effectiveness. My assistant, Dr. Kleeman, and I were excited enough!

Research Work.

"So I wrote to Rutherford in Canada. It seemed a very long time to wait the necessary three months for an answer. I knew I had made an important discovery, and it seemed, surely, that some one must stumble on it before I could get in from the other side of the world. I was away in the country when the answer might be expected. The coach that brought the mails used to appear on the skyline of the hill at 4 in the afternoon, and for many days I went to the post office hoping for the reply. At last it came, and all was well. How pleased I was! And I have never forgotten that Rutherford took the trouble, in the middle of all his own exciting discoveries, to write so promptly to some one unknown.

"After that, research work was part of my daily life, of course. I accepted invitations first to Leeds, and then after some years to London. And I have had the great happiness of sharing the work of my son on the X-ray analysis of crystals. When he had finished his courses at Cambridge, and was looking for work to undertake, I suggested to him that he should examine thoroughly the new discovery of Laue in Germany. It was then that he found a certain method of looking at that discovery which led to the researches we have carried on together."

REG. 22.6.26

A pamphlet containing the report of a lecture, "An Isolated Iconclastic Innovator," by Mr. G. G. Newman, B.A., which was read before the Johnian Club, Adelaide, last Friday night, has been received. The address deals comprehensively with the office of poet laureate from its origin to the present time, and particularly with the remarkable career of the present laureate, Sir Robert Bridges. A critical estimate of his poetry will appeal to students of literature.

REG. 23.6.26

SCIENTIFIC RESEARCH.

Meeting of New Council.

Mr. Bruce's Opening Speech.

MELBOURNE, Tuesday.

In opening the first meeting of the newly constituted Council for Scientific and Industrial Research to-day, the Prime Minister (Mr. Bruce) prefaced his speech by paying a warm tribute to the work done in the cause of scientific research by Sir Victor Wilson, who last week resigned from the post of Minister for Markets and Migration. In future, he said, the work of the council would be under the Prime Minister's Department instead of the Department of Markets and Migration, and its administrative head would be the Vice-President of the Executive Council (Senator Pearce).

The Reorganized Council.

In the reorganiaztion of the council, Mr. Bruce said the Ministry was of the opinion that it had done something which it could look upon with unmixed feelings. The general approval which greeted the act he took to signify three things—(1) the conviction, now deeply embedded in the public mind, of the overwhelming importance of scientific research for the productivity and prosperity of Australian industry; (2) the general recognition of the value of co-ordinating the whole of the activities of the country and directing them to the solution of pressing problems; and (3) an equally general recognition of the paramount importance of placing this work of co-ordination in the hands of a body of experts of unquestioned authority, representing every aspect of scientific enquiry and every interest at whose service research is to be placed.

High Hopes For the Future.

In referring to the high hopes which the Ministry entertained for the work of the council, Mr. Bruce said that he did not wish to suggest that the former institute was a failure. It had cleared the ground and opened much of the country the council would traverse. At the same time it was very severly handicapped by a lack of proper funds and by a too highly centralized form of organization. The main business to be conducted at the council meetings would be the formation each year of the policy of the institute and the preparation of the annual estimates. In order to provide for continuity and for attention to matters of necessity the Ministry had appointed an executive committee—consisting of the three Commonwealth nominees to the Council—which would meet frequently, would keep in the closest touch with the work, and would consult the State committees wherever necessary on matters of special concern to particular States. One of the first and most important matters on which the Council would be asked to advise the Ministry was the question of the fields of work in which investigations were to be initiated. It was considered that valuable results were more likely to be achieved by concentration than by diffusion of effort.

Imperial Co-operation.

The Ministry desired that every effort be made to utilize and co-operate with existing scientific institutions and departments in the different States. One of the council's important functions would be to act as a liason body between the Commonwealth Ministry and other countries in matters of scientic research.

The British Government had offered to throw open its research institutions to young Australians selected by the Commonwealth for training. Sir Frank Heath had also pointed out that it would be no less important to afford British scientific workers similar privileges in Australia as soon as research establishments were available to receive them. The Ministry heartily concurred with these proposals, and hoped that the council would utilize the facilities available for Imperial co-operation. The Ministry had already informed the New Zealand Government of the present reorganization of research, and had expressed its willingness to co-operate. There were also possibilities of co-operation with Canada, where the Dominion Government had recently established the forest produce laboratory, and with South Africa, where special attention had recently been given to the investigation of cold storage and transport problems. He regarded the matter of Imperial co-operation in research as one of outstanding importance. Without looking very far ahead he could foresee the time when it might be developed in such a way as to be on a par in importance with Imperial co-operation in defence. He felt sure that the question would be listed for discussion at the forthcoming Imperial Conference, and he would be glad to have the advice of the council on the steps which could be taken to foster co-operation in research between Australia, Great Britain, and the other dominions.

The council subsequently sat in private, and will meet again to-morrow.

REG. 23.6.26

EDUCATION CONFERENCE.

The third conference of the Education Society will take place at the Institute Hall, North terrace, Adelaide, between July 7 and July 10. The President of the society (Professor J. McKellar Stewart) will occupy the chair, and the opening speakers will include the Lord Mayor (Mr. Wallace Bruce) and the Director of Education (Mr. W. T. McCoy, B.A.). A comprehensive business agenda has been drawn up as follows:—Wednesday, July 7, —8 p.m.—Chairman, Professor J. McKellar Stewart; speakers, the Lord Mayor (Mr. Wallace Bruce) and the Director of Education (Mr. W. T. McCoy, B.A.); subject, "Education for citizenship." Thursday, July 8.—4.30 p.m.—Chairman, Dr. Helen Mayo; speakers, Dr. F. Hone and Mrs. T. G. B. Osborn, M.Sc.; subject, "Health and citizenship." 8 p.m.—Chairman, the Minister of Education (Hon. L. L. Hill, M.P.); speakers, Professor R. W. Chapman and Mr. L. S. Clarkson; subject, "Vocation and citizenship." Friday, July 9.—4.30 p.m.—Chairman, Mr. D. H. Hollidge, M.A.; speaker, Professor. W. K. Hancock; subject, "The past and citizenship." 8 p.m.—Chairman, Mr. W. R. Bayly, B.A., B.Sc.; speakers, Professor Sir Archibald Strong and Professor H. Darnley Naylor; subject, "Culture and citizenship.". Saturday, July 10.—10.30 a.m.—Chairman, Miss D. Gilham, M.A.; speakers, Miss Adelaide Miethke, B.A. (Inspector of Girls' Schools) and Mr. W. J. Adey (Superintendent of Secondary Education); subjects, "Preparation of girls for citizenship." "Preparation of boys for citizenship." 8 p.m.—Chairman, Professor McKellar Stewart; speaker, Hon. Duncan Hughes, M.H.R.; subject, "Politics and citizenship."