

ter), the Speaker of the House of Assembly (Sir Jenkin Coles), and the Mayor of Adelaide (Mr. L. Cohen, M.P.). In the row immediately behind these sat the following members of the council of the school:—Senator D. M. Charleston, Representative A. Poynton, Hons. H. Adams and J. G. Rice, Professor Bragg, and Messrs. T. Scherk, M.P., J. C. F. Johnson, E. W. van Senden, R. E. E. Rogers, and the registrar (Mr. J. A. Haslam, B.Sc.).

In handing the key to Sir Langdon Bonython,

The Commissioner of Public Works (Hon. R. W. Foster) said:—It is my pleasing duty as Ministerial head of the Public Works Department to hand over to Sir Langdon Bonython, president of the School of Mines and Industries, the key of this noble building, which will remain for all time as a fine evidence of the princely liberality of the Hon. George Brookman, without whose splendid challenge this good work could not at this juncture have been undertaken. (Cheers.) When Mrs. Brookman laid the foundation-stone on March 7, 1900, I said that Mr. Brookman's only stipulation was a desire that the chief feature in the future of this institution should not be its external embellishments, but the higher and more beneficent results of a continuous succession of students thoroughly equipped, so as to hold their own against all competitors in any part of the world, and our limited exchequer has assisted to keep that object in view, but the structure is nevertheless a fine addition to the architecture of North-terrace and the city. (Cheers.) I congratulate the Superintendent of Public Buildings

and the chief draughtsman on their having successfully interpreted the ideas of the specialists on the council of the School of Mines, and on the appropriation of the 60,000 superficial feet of floor space in such a way as to secure a splendid adaptation throughout for teaching purposes. (Cheers.) In 1900 the Hon. J. G. Jenkins—then Commissioner of Public Works—Sir Langdon Bonython, and Mr. Owen Smyth visited the other States to inspect similar institutions, and their combined suggestions, with those of the council generally, and ideas gathered from drawings of technical school buildings in other parts of the world, have resulted in the completion of a structure of which South Australians may be proud for generations to come. (Cheers.) Mr. Owen Smyth and Mr. Krichauff have in this building a lasting memorial of their handiwork, and Mr. Fricker (the contractor) has left nothing to be desired in his work from base to top-stone; while the electric light installation by Messrs. Todd & Samuel will prove one of the finest in the city. The cost of the entire work is £37,114 14/8, inclusive of the gift by Mr. Brookman, and this amount covers the cost of fitting up the Murray library, the Noyes Bros' laboratory, a pleasing extra incurred to find room for the generous gifts of these gentlemen, and the whole amount over and above the Brookman gift has been provided on the current revenue Estimates. (Loud cheers.)

Sir Langdon Bonython, on receiving the key, said:—Ladies and gentlemen—Having accepted this key from the Commissioner of Public Works, as the representative of the Government of South Australia, it now becomes my duty, as president of the council of this school, and on behalf of the people of this State, to ask his Excellency the Lieutenant-Governor formally to declare the building open for the purposes for which it has been erected. (Cheers.) It is a key, your Excellency, which will open the door to increased and much-needed facilities for acquiring knowledge and skill of a most valuable kind. It may also be regarded as a symbol of the objects of this institution, for technical education is now universally acknowledged to be the master-key to that efficiency without which there can be no industrial or commercial success. (Cheers.) Technical education is essential not only to the prosperity, but to the very existence of producing and manufacturing communities. (Cheers.) You attend here to-day, sir, in your capacity as Lieutenant-Governor, but we do not forget that you are also Chancellor of the University of Adelaide. The University and the School of Mines and Industries together may be regarded as covering the whole domain of education. Universities in the past, whatever may be the case to-day, aimed only at imparting knowledge. Technical schools exist not merely to impart knowledge, but to apply it; to produce skilled hands as well as capable brains. (Cheers.) The University and the School of Mines are not rivals—one is the complement of the other. No one person has done more for the University than its present Chancellor; nobody has had its interests more sincerely at heart; but you will permit me to say, sir, that you have never done anything in connection with the University that will be more appreciated by the public than the assistance which you have recently rendered in the establishment of a basis by which the possibility of friction between the two institutions should be entirely removed. (Cheers.) This school had its origin in the report pub-

lished in 1888 of a board appointed to enquire into the subject of technical education. Fourteen years ago on the spot where we are now assembled, the inaugural meeting was held. It took place in what had been an annexe of the 1887 Exhibition, and was presided over by Sir John Cockburn, who is now prominently associated with technical education in Great Britain. The school, which was declared open by his Excellency the Governor, Lord Kintore, began in a very small way, but it soon outgrew the accommodation provided by the annexe, and was transferred to the basement of the Exhibition Building itself. In the first year there were about 300 students, and, in spite of insufficient room, and far from congenial surroundings, the numbers increased from year to year, the record for 1902 showing a total of nearly 2,000 students. (Loud cheers.) Ever since the year 1889 there has been a School of Mines and Industries in Adelaide, but not in the full and complete sense in which such school exists to-day. A school need not, of course, be associated with bricks and stone, but somehow, the imagination craves a local habitation, and, on this ground, as well as on the score of urgent need, the members of the council and of the teaching staff, with past and present students, rejoice with exceeding joy that the school has changed a dark and cheerless basement in a building which was not its own, for a building that is to be its permanent abode, and which is well lighted and admirably arranged throughout. (Cheers.) You, sir, are admitting us this afternoon into a beautiful edifice, which is, and will be, a source of pride to students, and which suggests even to the casual observer the importance of the institution which it houses. But, even now, I am sorry to add, provision is not made to meet all the requirements of the school. I do not mention this by way of complaint; I want that to be clearly understood. The members of the council are genuinely thankful. They thank the Parliament and the Government for their goodness. In these days of acute financial stress the Commissioner of Public Works and his colleagues deserve our warmest thanks for the consideration they have shown, especially in the furnishing and fitting up of the classrooms. The council also wish specially and very heartily to thank the Honorable George Brookman for his great generosity. (Loud cheers.) Without Mr. Brookman's contribution of £15,000 we should not be gathered in this hall to-day. (Cheers.) A commencement no doubt would have been made, as the Kingston Government, of which Sir Frederick Holder was Treasurer, had undertaken to put £10,000 on the Estimates as a first instalment of the building fund; but without the liberality of Mr. Brookman Adelaide would have had to wait indefinitely for the ornate structure which now graces North-terrace, and for which the Superintendent of Public Buildings is entitled to the greatest credit. (Cheers.) It is a monument to the skill and good taste of the department over which Mr. Owen Smyth presides. Mr. Fricker, the builder, is also deserving of the warmest thanks for the admirable way in which he and his workmen have carried out the contract. (Cheers.) In this connection I ought also to mention the names of other benefactors of the school. Mr. David Murray, with characteristic thoughtfulness, has provided a valuable library—(cheers)—not, as I remarked the other night, a library of novels, but a library of technical works, which will mean bread and butter to the students who diligently study them. (Cheers.) Then Messrs. Noyes Brothers, of Melbourne, with much public spirit and great liberality, are furnishing an electrical laboratory. (Cheers.) Nor must I omit to mention that Mr. R. Barr Smith, Mr. George P. Doolette, Mr. David Tweedie, and the late Mr. Charles Drew, with Mr. Brookman, have liberally contributed to the prize fund. (Cheers.) But I must not take up more time. I regard this gathering as a happy augury for the future of this school. The members of the council have great hopes concerning it. They see the possibilities of immense public service, and they believe those possibilities will be realised. (Loud cheers.)

His Excellency said—I can assure you that during my present administration of the Government—and I think I can go 27 years farther back than that, and say that during the nine times on which I have had the honor of representing the Sovereign in this State—there is no public act which has

given me so much satisfaction, and upon which I shall look back with greater pride, than that to which you have just called me, Mr. President, of declaring this noble building open. (Cheers.) In spite of your exhaustive references to those who have served this great institution, I think I must add a word of personal congratulation of my own. The Commissioner of Public Works is to be congratulated above all his predecessors, and, so far as I can anticipate, beyond his successors, on the fact that during his tenure of office this noble building—and, as he has called it, magnificent building—has been designed, carried out to completion, and opened for the benefit of the public of South Australia. (Cheers.)

I can congratulate you, Mr. President, on the accomplishment of one of the great ambitions of your life. (Cheers.) I don't think I am exaggerating your feelings on the subject when I say that for the last 14 years there has been no object nearer to your heart than the prosperity and the development of the School of Mines and Industries. (Cheers.) I also congratulate you that after 14 years of unstinted service to this institution you are able to see it housed in a building that will place it in a line, so far as equipment goes, with the best technological institution in any part of the world. (Cheers.) I should not be fulfilling my duty altogether if I did not mention a meritorious public servant on this occasion. In the designing of this institution Mr. C. E. Owen Smyth, who has had associated with him Mr. Krichauff, has had the great opportunity of his life. I venture to say that this building is Mr. Owen Smyth's great masterpiece of all that he has done to beautify the city of Adelaide. Not one penny has been wasted in the construction of the building, and the utmost possible accommodation has been provided for the money available. The great beauty of this building lies in its perfect adaptation to the objects for which it is designed. You will say, Mr. President, that I am following upon and weakening the tributes you have paid as I go along, but I think I am entitled to the privilege of congratulating my friend, Mr. George Brookman, on the completion of this building, which, as you and the Commissioner of Public Works have pointed out, would not have been erected but for his help. He has, by the generous gift you have mentioned, bracketed his name with those of Sir Thomas Elder, Sir Walter Watson Hughes, Mr. John Howard Angus, Mr. R. Barr Smith, and other patriotic colonists who have given of their means in a generous and unstinted manner for the advancement of education in South Australia. (Cheers.) I am sure you are all glad that this noble hall bears Mr. Brookman's honored name. In the long centuries to come it will stand as an enduring monument to Mr. Brookman's patriotism and munificence for the benefit of South Australia. (Cheers.) I take it that the event of this afternoon is not only one of great interest to every citizen of South Australia, but also it is an important incident in the struggle for commercial, maritime, and industrial ascendancy amongst the great nations of the world. (Cheers.) When I was young—I am not going to tell the Commissioner of Public Works how long ago that was—I was educated in the belief that one Englishman was equal to three Frenchmen. Britain ruled the waves, not merely by her navy, but also as having the carrying trade of all the seas. She had the lion's share in the manufactures of the world, and she possessed practically the monopoly of its commerce. But now all this has changed. We cannot help noting even at this end of the world that the French and the German steamships—floating palaces and warehouses—are attracting a large part of the passenger and carrying traffic passing between England and Australia, England and the East, and England and the West. It is not very long ago that we were startled by the great combine, which was to transfer the shipping traffic of the Atlantic Ocean from English to American control. You read in the newspapers a little while before that that the great German steamship Wilhelm der Grosse steamed into New York, having made a record passage across the Atlantic, with the words, which had hitherto been regarded as a sign of inferiority, in white letters, on her bow, "Made in Germany." (Cheers.) The United States and Germany are the great competitors with England in industrial pursuits and manufactures and commerce. Let me give you two examples of the success these two nations have met with in that competition. The chemical industries, which had their home in England, and which we were apt to think belonged to us, have been transferred to Germany. They meant £50,000,000 every year. In the United States the ironmasters are gradually annexing the steel and the iron trade, and the American machinists and scientists are also more successful than we are in mechanical and electrical engineering. We are, in fact, in the throes of a great industrial war. Our opponents have the same moral right as we possess to fight for victory. As has been the case in every contest, when it began England was not ready for it, and the great successes of our competitors result from our own over-confidence and want of enterprise to meet new conditions, and above all in lack of the superior technical training which is given in Continental countries, and by our kinsmen in the West. (Cheers.) Well might the Prince of Wales say after he had made a circuit of the colonial empire that if England was to maintain her ascendancy in regard to the trade in the colonial empire it must unmistakably wake up. (Cheers.) I am going to give you two examples of the success of our competitors. In Germany there are engaged in the manufacturing industries of the country 4,500 highly trained chemical experts, while in the United Kingdom all told there are not 1,500, or at the outside 2,000, experts of that character, and they are not equally equipped, and the majority of them are not equally skilful. Let me mention one result. The extraction of drugs, dyes, and perfumes from coal-tar was an English invention, and the industry began in England. At the present day we send the raw material to Germany and get back the manufactured article, and, of course, as my friend Mr. Dowie, I see, knows right well the manufacturer gets the profits. This is not an original statement of mine. I am repeating it from the presidential address delivered by Professor Dewar before the British Association last September. He mentioned that one of the German firms engaged in that industry in 1875 had 119 employees all told. To-day, after having exploited this English invention, they have 5,000 workmen, directed by 100 trained chemists and 280 engineers. The profits they make year by year amount to about 18 per cent. on their capital. Last year and the year previous