

assistants. The technical staffs of the electrical workshops of Adelaide know well the Noyes Laboratory and its first-class equipment, over which Mr. Motteram so ably superintends. Many a dozen engineering draughtsmen have risen from the bench to the drawing office through conscientious and prolonged effort in the evening drawing classes, and I can myself speak of the extraordinary talent for drawing that I have found in a number of apprentices of the building trades who have attended my classes in the department of architecture. It is invidious, perhaps, to have mentioned any particular case, for the range of subject is so wide and effort and result have been so consistently good. More than 2,000 individual students attend the school during each year, and their influence cannot fail to be felt. In another field a remarkable work has been done. I refer to wool-classing. Who can place a value upon the unique training that hundreds of young men have had in classing annually the greater part of the wool clip of the State? Pastoralists have maintained that South Australia has profited to the extent of hundreds of thousands of pounds by the school's organisation and systematisation of this work.

Advantages of Flexible Management.

That Education Bill provides for the transfer of the School of Mines and Industries to the Education Department. It removes from the council of management all the powers conferred on them by the School of Mines Act and places those powers with the Minister. It mildly provides that the council of the school shall remain in office, denuded of those powers which they have exercised for nearly 25 years, and be given new functions by regulation. It provides that the School of Mines shall be a "public school" and that the Director of Education shall be responsible for its curriculum. The answer given by those who support the Bill to the statement that the school has done so well in the past that it should not be disturbed is that under the proposed new administration "it will do better work in the future." Now, I wish to make some emphatic statements, and having graduated as an associate of the school solely by evening work, having afterwards become a fellow, having been an instructor, and then registrar for eight years, and having had opportunity to critically compare the institutions in New South Wales and Victoria with our school, I may be pardoned for having definite views. In the first place, I attribute the successful working of the School of Mines to the flexibility of its management. Sir Langdon Bonython has a thorough grip of all its ramifications, the council have been keen in watching the interests of the school, in selecting staff, and administering finance. They have looked to efficiency, and have used their influence outside of the school as well as inside, so that in Parliament, in the press, and in all departments of industry, the school has had its champions. On the other hand, they have never meddled with the technical work of the classes, evidently assuming that, having secured the best man available as instructor, they should not interfere with his methods. Are we to believe for one moment that this flexibility will continue to exist if the school becomes a part of the State educational system? Emphatically no! It is with no reflection on the Civil Service that I say that the peculiar form of individual initiative requisite in the staff of such an institution as the school is not found in any Government department. The formalities of governmental work are too elaborate to permit the desired degree of adaptability, and I should be, indeed, astonished to hear the present Director of Education say that he could administer departmentally the School of Mines and Industries more economically and efficiently than has been the case under the council during the last decade, and may I ask whether any section of education under the department awakens the public interest, or has had public support comparable to that enjoyed by the school? Have men of the type of our president and his co-councillors been ready

to give their time in support of primary education, the high schools, or the School of Art since its transfer to the department? There is certainly no evidence of it. Donations to the school like those of Mr. George Brookman, Sir Langdon Bonython, the late Mr. David Murray, and the late Mr. J. H. Angas find no parallel in any department of education controlled departmentally. It is a lamentable fact that the people are not interested individually in Government departments excepting to criticise them.

The Fetish of "Co-ordination."

The ostensible reason for the proposed transfer of the school to the Education Department is "co-ordination," but if we think for a moment we realise that the vital interests of a school of industries, its duty to serve the requirements of various professions and trades, and its severe practical character make its close association with a department administering primary education quite ridiculous. In my connection with the school there has been no Minister of Education who has evinced any desire to study the workings of the institution, and the majority gave no indication of any interest in it whatever. It was this knowledge that led me to say before the Commission that the school's "connection with industry should be so close that the responsibility of providing a large portion of the Government grant for its maintenance would fall on the Minister of Industry. Only by serving industry can technical education be given the life it should have." I felt then, as I feel now, that it was not an approachment to the Education Department that was necessary, but rather a closer association with the Department of Industry. The Education Bill does not contemplate the transfer of Roseworthy Agricultural College to the Education Department, which accentuates the contention made. The college will continue to do its best work when in closest association with the agricultural interests of the State, and that is obviously under the Minister of Agriculture.

Excellent Equipment.

There has been much said about the equipment of the school, and it has been assumed that it is not up-to-date. In the main this is quite untrue. For teaching purposes the greater part of the plant is perfectly efficient. The electrical laboratory has practically everything necessary the mechanical engineering laboratory has experimental steam engines, condenser, and compressor, gas engines and gas plant, all specially built for demonstrating the underlying principles of the respective mechanisms. Unfortunately some critics do not appreciate the special requirements of a machine for instructional purposes. A lathe, for instance, for teaching screw-cutting, does not require, nor is it advisable that it should have, all the up-to-date accessories of the modern commercial article: it should have the plain essentials, and the man who can work it can quickly adapt himself to the use of the labor-saving devices of the modern machine. Nor could any school keep abreast of the times if this were not the case, for the incessant change in minor devices would lead to an amount of scripping only possible in the greatest of commercial concerns. The

plant at the School of Mines is perfectly satisfactory. Extensions are necessary, but if our critics had carefully enquired as to the additions made annually during the last five years, and out of a meagre grant, they would not have made extraordinary and inaccurate statements in this respect.

University and School.

In conclusion, may I refer to the connection of the school with the University. As is well known, in the higher branches of engineering, mining, and metallurgy, the two institutions share the teaching, and the University grants the degree bachelor of engineering to students completing the joint course. No such co-operation exists in Melbourne or Sydney, and it is a tribute to the authorities of the University and school that such co-operation has been possible here. The courses are now so interwoven that they could only be separated at great expense and duplication of plant and teaching energy. Sir Langdon Bonython maintained in evidence before the Commission that if it became a question of Education Department or University to which the school should be transferred, the University should undertake the work. There is much in this statement that has been overlooked by members of the Commission. If they desire so much to co-ordinate institutions, why not, since they lack the temerity to make the University a Government department, act on the president's suggestion and hand the school to the University, constituting a special council to control the industrial functions of the institution, and leaving the diploma departments to the faculties responsible to the University Council? Failing the maintenance of the integrity of the old school this is the best sacrifice to co-ordination. From it would result an arrangement satisfactory to the University, and to graduates of the school whose diplomas would suffer no loss of dignity by the change. There would be continuity, and the institution would be preserved as one of those in which the public have a live interest, and in which men may continue to serve as in the past the lamp of sacrifice.

Admiral, 9.11.15

THE SCHOOL OF MINES.

One of the most important questions of public policy which will have to be decided before the Education Bill now before the Legislative Council reaches finality is the future status of the School of Mines and Industries. As the measure stands, it proposes to bring this institution into the system controlled by the Education Department, the idea being that all technical schools should be linked up with the primary and high schools of the State under a single administration. The proposal emanates from a desire to organise on lines of mechanical uniformity rather than from any experience of defects likely to be remedied by farther taxing the energies of the Education Department with responsibilities for which its officers have had no training and which present no natural affinity to those connected with the work of the primary schools. A restless aspiration for system and co-ordination ought not to be gratified at the expense of proved efficiency, and before Parliament agrees to any change in the present methods of technical education it should be satisfied that it will be of real and not merely theoretical advantage. On all hands the success of the School of Mines and Industries, associated as it has been for years in the higher branches of its operations with the University, is cordially acknowledged, and to leave well alone is, if not the counsel of abstract perfection, at least that of practical commonsense. But if it be felt that the existing position of the School is in some ways anomalous, and that a change ought to be made to give it a place fitting it more symmetrically into the whole educational structure, it is desirable that the alteration should be made in conformity with sound principles.