Register 9.3.23
Take advertiser

Continued

(6 on 19)

**ELDER CONSERVATORIUM.**

The choral class under the conductorship of Mr. Frederick Bevan will meet on Tuesday evening, to begin rehearsals of Mendelssohn's "St. Paul." New members will be interviewed by Mr. Bevan at 7.30. This class, as well as other Conservatorium classes, may be availed of by those who are not students of principal subjects.

Critic 7.3.23.

MR. T. W. McCOY.

Mr. W. T. McCoy (Director of Education), accompanied by Mrs. McCoy, left by the R.M.S. "Kalyan" on Monday for England. Mr. McCoy will attend the Imperial Conference on Education and enquire into education matters in various European countries and America. There were at the station Mr. C. Charlton (Deputy-Director of Education), Mr. T. H. Nicolle (president), and Col. T. H. Smeaton (secretary of the Teachers' Union), Mr. H. J. Tuck (president of the Headmasters' Association), Dr. Schulz (principal of the Teachers' College), Messrs. E. D. Nicholas (presenting Male Assistants' Association), H. Gosden (Country and Suburban Association), H. E. Flint (High School Assistants' Association), W. Bennett (headmaster of the Norwood State school), C. Bromner (Sturt Street), M. Gerlach (Assistants' Association), T. H. James (supervisor compulsory branch), J. H. Williams (Training College), and Misses Phoebe Watson (practising school), Lamb (East Adelaide), and Miethke. Several of the officers accompanied Mr. and Mrs. McCoy to the Outer Harbor.

The Advertiser

ADELAIDE: FRIDAY, MARCH 9, 1923.

## THE "CREATIVE PROFESSION."

Whatever may be the attitude of the "man in the street," no thoughtful mind can help regarding with deep interest the annual meetings of delegates of the Institution of Engineers of Australia, gratefully recognising that the department of science they represent is one that directly affects the comfort and welfare of all classes of the community. Yet there is no reason to deny that, as plaintively observed by Professor Chapman, president of the institution, at the civic reception to the conference now assembled in Adelaide and attended by delegates from most of the States, that there is room for a much wider appreciation of what he rightly called "the one creative profession." There may be a touch of exaggeration in his suggestion that its votaries have no higher place in popular esteem than had the medical calling when its functions were largely divided between the village blacksmith, who combined the extraction of human teeth with the shoeing of horses; the barber, who attended to the bleeding of patients; and the apothecary, who prescribed the medicines he compounded. But it may be conceded that the status of engineering is not as high as it ought to be, considering the rarity of the qualifications it requires, and the strain it often imposes even on the skilful brains enlisted in its service.

It would not perhaps be untrue to call engineering the Cinderella of the professions so far as concerns the prestige and emoluments that have fallen to all but a few of its practitioners. Something, as Professor Chapman suggests, may be due to the vagueness of the term "engineer," which makes no distinction between, for example, the originator or controller of the hydraulic works of a city and the driver of a locomotive. For, in spite of Juliet, there is, after all, so much in a name that but for this vagueness of designation the deviser of an electrical system, an irrigation scheme, or a railway, tramway, or sanitary service, might experience much less difficulty in having his claim to distinction adequately recognised. The recognition would come at once, and with it, perhaps, the emoluments so naturally and rightly coveted by the engineers, if the generality of people would reflect now and again on the influence of the "creative profession" on the course of commerce, on the progress of civilisation, on the social revolutions of mankind, and on the destiny of nations. So much do we associate civilisation with rapid and safe transport, with perfect lighting, and with sanitary conveniences, that it is hardly possible to contemplate its existence without them. And when the view is extended to the great mechanical achievements of the world which—by joining oceans, spanning continents with the iron horse and the telegraph, annihilating time, and making space a mere matter of detail—the engineer has almost remade, even a hater of his kind must feel that man is great, and the power of nature weak when pitted against his trained intelligence. If engineers are apt to contrast their lot to its disadvantage with that of other professions there is one direction at least in which they are not badly treated by fortune. While the barrister, the doctor, the actor and singer, and many other caterers for the public welfare or entertainment have always to face the prospect of their performances, when not overtaken by oblivion, surviving only in tradition, the engineer may claim to have it said of him, sometimes for ages after his death, in the words of the epitaph of Christopher Wren in St. Paul's Cathedral, "Si monumentum requiris, circumspice." If the engineers suffer from a lack of appreciation in their lifetime, at least they have the privilege of building their own monuments. But as all things human perish, even these will go in time, for the modern world has either not learned or else has not cared to practise the ancient art of investing miracles of engineering with the quality of withstanding, like the Egyptian Pyramids or the Roman aqueducts, the ravages of age. It is well sometimes to be reminded that many strong men lived before Agamemnon.

While this is true, however, there is a tendency that needs to be corrected towards magnifying the past to the depreciation of the present. The works of the ancients astonish by their size, by the brute force which must have been expended on them, sometimes also by the unsolved problems involved in the handling of vast masses of hewn stone, like those which went to the rearing of the Pyramids and the Monoliths on Salisbury Plain. But the canals which cut across the isthmuses of Suez and Panama are assuredly far more remarkable than all the marvels of antiquity, with the seven wonders of the world thrown in; and even the Chinese Wall, on the construction of which almost infinite labor must have been concentrated, is not half so astounding as the continental railways of the modern world, while as masterpieces of engineering art the Roman and Carthaginian aqueducts were poor affairs beside the waterworks of many a modern city. And, as all are agreed, the future is with the engineers; for it is difficult to assign limits to the possible achievements of an art which has accomplished so much. Where science is concerned its professional votaries are not always the safest guides. They are apt to be over-cautious, as even Lord Kelvin showed himself when, not long before the transmission of electric power became un fait accompli, he declared it to be impracticable because of the cost and weight of the conductors. He knew power, as power, could be conveyed, but did not foresee the higher pressure currents of to-day. In a letter to the London "Times" as recently as 1878 Professor Erasmus Wilson made a similar mistake apropos of the electric light, of which he said, "without fear of contradiction," the close of the Paris Exhibition (where the light was installed) would witness the end. It takes the imagination of an H. G. Wells to foresee the Atlantic bridged with pontoon roads, heat and power conveyed direct from coal mines, the transport of coal done away with, and many other wonders "yet to be." With these, of course, the engineers of to-day have nothing to do. But, except perhaps, during such an economic crisis as that through which the world is now passing, there is, or ought to be, no limit to their scope of employment, especially in a young land whose material development depends so much upon their knowledge and skill. A country like Australia can have no more valued workers than the men who wrestle with the elements, perform miracles with iron and stone, and subdue to their purposes that tricky sprite electricity, and if—as who can doubt?—with the encouragement of greater prestige and more substantial recognition, they fling themselves with greater zest into their work it would be suicidal in their fellow-citizens to withhold these incentives from them.

Register 10/3/23

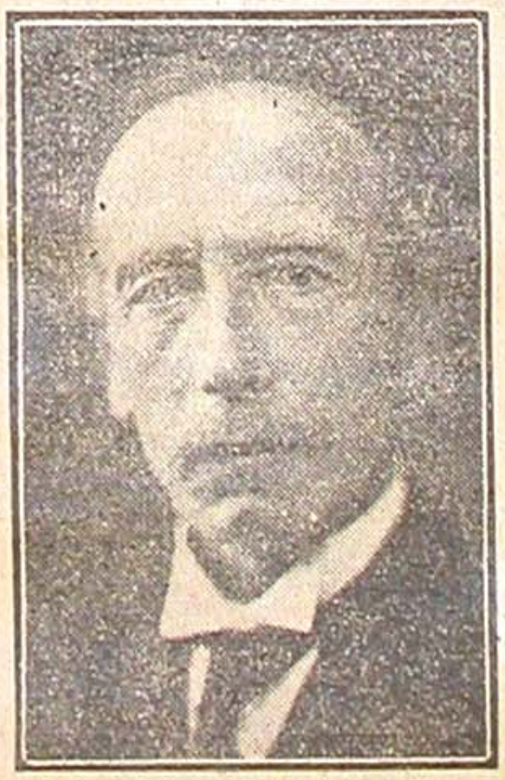
# PROFESSIONAL STATUS.

## The Position of Engineers.

## Need for Improvement.

The final business gathering of the Engineering Conference, which has been holding meetings and gatherings during the week, took place on Friday evening, when the presidential address was delivered by Professor R. W. Chapman. In the course of the lecture prominence was given to the need for the improvement of the status and advancement of the engineering profession.

There was a large attendance at the Institute Lecture Room, North terrace, and the address was listened to with close attention and much interest. The President said that the Institution had now completed its third year as a Federal body, and the progress had been such that the foundation had been laid of an organization that would foster interests of the



PROFESSOR R. W. CHAPMAN,
who has presided during the week over the meetings of the Engineering Conference.

engineering profession in Australia for generations to come. There were 2,300 members of all grades, 400 of whom had been added in the last two years. In most States there were vigorous student sections providing a guarantee of a supply of virile young blood to carry on the work. He urged that now that Australian engineers had united the published transactions and proceedings of the Institution should become the natural and proper place in which the records of engineering works in Australia should be found. It was to be hoped that our leading engineers, men in a position to write notable and important papers, either describing engineering works, or marking advances in the science or practice of engineering in Australia, would seriously consider the desirableness, for the sake of the profession in this country, of publishing them in their own proceedings. The objects of the Institution were to promote the science and practice of engineering, and generally to bring about a closer cooperation of engineers throughout the Commonwealth for the advancement of the engineering profession.

### High Qualifications Needed.

It was clear that there was no argument for making a close profession of engineering, except that the men claiming to be professional engineers must be highly qualified and thoroughly trained. Increased rates of pay could only be legitimately demanded if the engineer were really the trained man he claimed to be. The first thing to aim at to put the Institution in a position to carry out such advances was to see that the standard for entrance was made sufficientiy rigorous, and that the profession was placed on a pedestal at least as high as other professional men placed theirs. It was felt that the engineer in Australia had not attained the status that was his due, having regard to the responsibility and character of his work and to the training required before he became competent to undertake it. Especially it would seem that the State Governments, which employed such a large proportion of the engineers of the country, had in general failed to appreciate two great facts, firstly, that a highly efficient engineering staff was absolutely essential to the economic development of the States; and, secondly, that it was not to be expected that such efficiency would be secured unless the career of those entering the engineering service of the States was made sufficiently attractive to induce brainy young men to adopt it.

After having referred to great engineering works of olden times, the professor said it was obvious that the modern man who was to be master of his profession required an altogether different and more extensive equipment of knowledge and training than his older prototype. But it was precisely that difference that the general public and the Governments had been so slow to recognise. The status had, as a result, remained at a lower level than it might justly claim. While the demands made upon the engineer had become more and more exacting in the matter of requiring a broader and deeper foundation of scientific and practical knowledge, which had commonly to be combined with administrative ability and capacity for handling men, until to-day there was no profession in which the requirements were greater, it was unfortunately true that the rewards of the profession had not increased in anything like corresponding proportion. High proficiency among the practising engineers of Australia was an absolute necessity for the successful development of the country, and the profession must be made sufficiently attractive to induce at least a fair proportion of our keenest minds and brightest brains to enter it. Engineering had developed from an empirical art to an applied science. The modern engineer must have not only practise in the work of his profession, but a knowledge and understanding of the underlying scientific principles as deduced by the great investigators of the past, and, in addition, he should be in touch with present-day developments.

### Marvel of Electricity.

One of the most astounding things in the whole of human history was the development of electrical engineering in the last 50 years. Rapidly the great waterfalls of the earth were being harnessed to supply the power that was distributed to centres of industry miles away. Electric light was universal, and artificial illumination might rival daylight. Trams and trains and other vehicles were driven by an invisible force as silent as it was powerful. By its aid we listened to, and conversed with, distant friends whose voices were carried by the same mysterious agent along miles of telephone wire or more astonishing still, by electrical waves through space. Scarcely any event that had ever happened could compare with that in its effect upon the habits and progress of mankind. It was the spirit of scientific research, permeating the whole life of engineering that was responsible for the ever accelerating advance in invention, and the more general application of scientific principles to every sort of engineering work made the demands upon the knowledge and intelligence of the engineer greater and greater.

### Two Main Factors.

As a matter of abstract justice the status of a profession should depend upon two main factors, the value of the work done by the profession for the community, and the character of the training and mental qualifications required of its exponents;