The Register.

WEDNESDAY, MARCH 7, 1923.

THE ENGINEERING AGE.

Those perverse people, the Erewhonians, had no use for machines, except as museum exhibits illustrative of the bad old days when men were held in subjection by the machinery which they had created. Members of the Engineering Conference, meeting in Adelaide this week, probably would not agree with Samuel Butler's imaginative philosophy. In any case, they are not concerned with the question whether mankind is made any happier by the multifarious mechanical contrivances by which it is surrounded. It is not their business to determine whether people who can be transported in a motor car or express train at 60 miles an hour, are necessarily healthier and more contented than their forefathers, who had to walk. Nor are the engineers called upon to decide whether twentieth century civilization, whose distinguishing feature is its wealth of mechanical invention, is by reason of its machines superior to the ancient civilizations, which were concerned with mind rather than matter. These problems may be left to the philosophers-a tribe who, while frequently denouncing material progress, are usually found in full enjoyment of the comforts which engineering science can offer! The mission of the engineer is to render service to the community; to harness and apply science for the practical benefit of mankind; to make safe the ways by which men travel; and to supply in various directions the complex needs of civilized peoples. Modern societies may not be any happier because of their wonderful machines, but it is certain that the vast populations of to-day could not be supported without the devices which science and engineering provide. If machines are turned to dreadful purposes of destruction in war-appearing like Frankenstein monsters blindly devouring their makers-they serve constructive and beneficial ends in time of peace.

As opposed to the theory that men are the slaves of the machines which they tend, the engineering ideal is the delivery of the race from drudgery and want. Machinery is to do the heavy, tedious work, increasing the supply of commodities, abridging the hours of labour, and raising the standard of living. Of course, as engineering skill ministers to the needs it also multiplies the wants of mankind. The luxuries of to-day are proverbially the necessities of to-morrow. Disputants have not yet decided whether Henry Ford, with his dream of a motor car in every home, is a benefactor of or a menace to his country and humanity at large; but at least the demand for his product shows how a luxury becomes a requisite immediately engineering science places it within reach of the masses. In countless ways apart from transport-bridgebuilding, road-making, water supply, construction, and so on-engineering increases the comfort, safety, and prosperity of the community. It encompasses the modern city dweller more particularly at all points of his existence. Indeed, when they reflect upon their importance in the scheme of things, members of the Engineering Conference might be inclined to regard themselves as indispensable public benefactorsuntil their self-esteem is chastened by the reflection that the emoluments of the profession rarely accord with this lofty view of its responsibilities! Professor Chapman, who is a stanch ad-

vocate of the elevation of the status of the engineer, in a recent address deplored the fact that engineering did not rank higher among the professions. "There are engineers in Government departments who spend hundreds of thousands of pounds of public money, and whose salary is a mere pittance." He urged further—and the contention will doubtless be warmly supported at the Adelaide meetings—that the service should be made sufficiently attractive "to draw to it a certain proportion of the brainiest young men of Australia."

The interstate conferences, of which the present gathering is the second afford a means of combining recreation and mutual instruction with the education of the public in the importance of engineering. The average person is not interested in engineering problems until something goes wrong. Surrounded by mechanical marvels, he takes his tramways, water supply, lighting service, and so on, so much as a matter of course that he is amazed and indignant when they are momentarily interrupted-as if they were automatic contrivances, and not dependent for their smooth working on the skill of the men behind the machines. Perhaps the conference will advantageously emphasize the human element in engineering. It may also deal with other problems, one of which - standardization-is dear to the President's heart. He has repeatedly urged that we are years behind America and England in this matter, foolishly superimposing upon the manufacturing drawbacks of high wages and short hours of labour, a multiplicity of standards, which hinder production and necessitate the maintenance of an excessive quantity of expensive plant. In America the standardization of motor car and general engineering parts has been reduced to a fine art, with the result that a better and cheaper article has been produced. If Australia is as far behind in this question as engineers allege, the sooner steps are taken to ensure uniformity of specifications, and standards the better. In return for such edification as the deliberations of the conference may afford, Adelaide has few great engineering accomplishments to exhibit to its visitors. It has however, an excellent tramway system, of which it boasts in public and occasionally criticises in private; it has in the Millbrook Reservoir a water storage system of surpassing scenic beauty; the State is modernising its railways on both engineering and business lines; and it has had the enterprise to send abroad its Engineer for Roads and Bridges, whose increased knowledge of roadmaking is now being applied to the highways. Supplemented by the abundant hospitality for which the city is noted, these achievements should serve to make the stay of the delegates interesting and enjoyable.

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THE REASON FOR HIS EMPLOY-MENT.

Professor R. W. Chapman told an amusing story at the cavic reception given on Tuesday to the engineers visiting Adelaide in connection with their annual conference. A friend of his, a chemist, employed at a sugar refinery, had recently been asked by a seemingly well-educated men if there were "so many men always sick at the refinery that he had to be continuously employed." There was just us little intelligence shown concerning the work of an engineer. An engineer might mean a man in charge of great hydraulic works, a man at the head of a rullway system, or a man driving any variety of steam engine. The term meant all these things and many others in the public mind. Medicine and law were both honl ored professions, though it might be said that the medical man lived upon siesuess, and the lawyer upon other people's troubles. Engineering, however, was a great creative profession.

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ENGINEERS CONFER

Delegates in Adelaide.

Extensive Plan of Campaign.

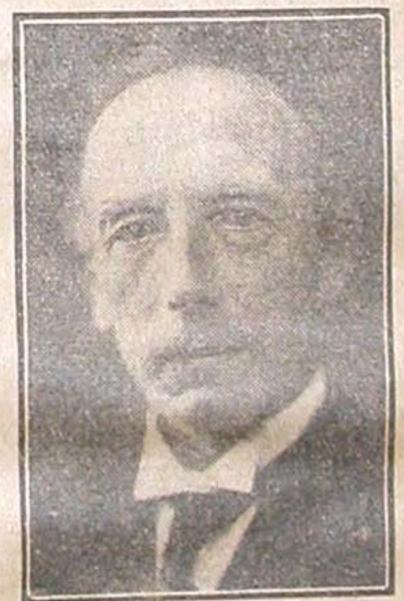
By the two divisions of the express from Melbourne on Tuesday there arrived in Adelaide more than 50 interstate delegates to attend the second interstate conference of the Institution of Engineers, Australia, The conference is being held in Adelaide because the President now in office is an Adelaide member. All the States of the Commonwealth have sent representatives—New South Wales and Victoria, 25 each; Queensland, 3; Western Australia, 2; and Tasmania, 2.

The delegates were met at the Railway Station by Professor R. W. Chapman (President of the Council), Mr. J. Bowman (a Vice-Chairman of the Adelaide division), Mr. W. G. T. Goodman, and Mr. E. V. Clark (members of the local committee), Mr. E. F. Eberbach (the South Australian secretary), and several other members of the committee. In the ranks of the visitors there are included many well-known interstate engineers and public men. Sr. J. D. Millen (a Vice-President of the Council), is one of Tasmania's two representatives; and among other members of the council there are Messrs. H. E. Coane and A. C. Mackenzie (Melbourne), Frankel (representing Professor H. E. Whitefield, Perth), A. J. Gibson (Newcastle, N.S.W.), R. J. Boyd, and F. P. Kneeshaw (Sydney) , and the secretary (E. S. McLean).

Some of the Delegates.

A large number of delegates are staying at various hotels in the city, while others are guests at private homes. Those who are located in the city include:—At the South Australian—Messrs. M. C. Coates, H. E. Morton, R. J. Pringle, T. M. Ritchie, and J. Jobbins (Melbourne). At the Grand Central—Messrs. A. J. Arnot, T. H. Houghton, and W. M. Poole (New South Wales). At the

Grosvenor-Messrs. C. F. Assheton, A. E. Bowen-Steane, A. E. Fraser, L. E. W. Horne, A. T. Jones, C. A. Lonsdale, J. McGeachie, H. Sticpewich, W. Stephinson, J. D. Smith, C. E. 10dd (New South



PROFESSOR R. W. CHAPMAN,
the third President of the Institution of
Engineers, Australia, whose annual conference is being held in Adelaide during this
week.

Wales); S. M. Allen, W. A. Emmerson, T. Ewing, R. E. Fuller, E. P. Grave, E. D. Reid (Victoria), F. Morrison (Western Australia).

A Busy Week.

The conference will last for seven days -from March 6 to March 12, inclusive. The first public function took place on Tuesday afternoon, when the visitors were tendered a civic reception at the town hall, and in the evening there was a smoke social at The Grosvenor. The rest of the programme may be summarized thus:-Wednesday morning, visits to Holden's Motorbody Factory and Islington Workshops; afternoon, visit to Adelaide Electric Supply Company's new generating Mr. W. G. T. Goodman; Thursday morning, visits to Pengelley's Furniture Factory, and Tramway's Trust's power station; afternoon, visite to Tramways Trust car depot and Henley Beach; 8 p.m.

institute, lecture by Mr. C. A. Bayer; rulday, visits to Milhrook Reservoir and Barossa Dam; 8 p.m., institute, annual meeting; Saturday, visits to Mount Lofty and Penfold's Magill vineyards; Monday; visit to River Murray Reclamation Works. Meetings of the council will be held on Wednesday and Thursday afternoons at the University.

This morning Mrs. R. W. Chapman, and the wives of the committee of the Adelaide division, will entertain the wives of the visiting and local members at the Botanic Gardens Klosk, at 10.45.

Adelaide Division.

The conference committee includes:—Mr. J. H. O. Eaton (Chairman), Executive Committee, Messes. J. Bowman (Acting Chairman), W. L. Burton, E. V. Clark, C. D. Gibb, and Professor Chapman; General Committee, Professor Chapman and Messes. C. G. Bayer, W. L. Burton, E. V. Clark, J. H. O. Eaton, D. V. Fleming, W. G. T. Goodman, H. G. Jenkinson, E. A. Johnston, J. B. Labatt, S. McIntosh, J. R. Richardson, H. V. Ryan, F. W. Stephen, J. G. Stewart, A. E. Melbourne, F. W. Wheadon, Dr. W. A. Hargreaves, and Messes. E. F. Eberbach (Secretary), and W. Hobba (Assistant Secretary).

HAPPY GATHERING.

SMOKE SOCIAL AT GROSVENOR.

In the evening, the members of the conference gathered in the spacious dining room at the Grosvenor, North terrace, at an enjoyable smoke social. Professor Chapman presided over an attendance of about 150, of whom about 80 were visitors.

ing Chairman of the Adelaide division (Mr. J. Bowman) said Adelaide engineers would have a difficult task to bring the —1923 conference into line with the gather-

Nevertheless, they were glad to welcome the interstate visitors, and would do their best to give them an interesting time during their stay in Adelaide. (Applause.)

Responses were made by Messrs. Matthem C. Coates and G. G. Jobbins (Melbourne), and A. J. Arnot (Sydney). All referred in glowing terms to the splendid reception they had received in Adelaide.

The feature of the evening was an unusually good musical programme, to which many well-known vocalists and instrumentalists contributed, including Messrs. Robert C. Jones, Frank Charlton, F. G. Brown, and George Goldsmith. The accompanist was Mr. Wilfred Hobba. During the evening, the I.E.A. Quintette rendered delightful selections. Mr. Harry Lyons, the well-known ventriloquist, enlivened the proceedings considerably.

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Mr. Eric F. West, B.Sc., M.Sc., who, during the past two years has been abroad, will return home to Adelaide by the Commonwealth liner Jervis Bay to-day. He has had a brilliant academic career, and has also made extensive enquiries in America, England, and European countries in irrigation and agricultural matters. He is a son of the ex-Chief Inspector of Schools in South Australia (the late Mr. E. S. West). After having studied at the Reseworthy Agricultural College and served in the war, he took his B.Sc. degree at the Adelaide University, and was awarded the Lowrie Scholarship, which enabled him to go abroad to continue his studies. He proceeded to California, where, after a year devoted to irrigation and agriculture, he took the M.Sc. degree. Then he spent several months in a motor trip from California across country to New York, and on that journey visited important irrigation works. Next Mr. West visited England, Scotland, and Norway, and other European countries. He is about 30 years of age, and is : brother of the principal of the Adelaide High School (Mr. R. A. West) and also of Dr. G. R. West (of Prospect), and Dr. E. T. West (of the Adelaide Hospital).

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been an charge of the department of geology at the Sydney University for 31 years, expects to retire at the end of 1924. He returned to Sydney vesterday from Tasmania, where he has been writing a book dealing with the geology of the Commonwealth.

State Two things are needed-needed