

SCIENCE AND INDUSTRY.

New Council Formed.

Important Appointments Made.

MELBOURNE, Friday.

It was announced this evening by the Prime Minister (Mr. Bruce) that, in addition to the appointment of Mr. G. A. Julius, of Sydney, as Chairman of the new Advisory Council of the Institute of Science and Industry, the Government had appointed Mr. J. W. J. Newbigin, of Sydney, and Professor A. C. D. Rivett, of Melbourne, as the other two members of the executive.

Mr. Bruce stated that these appointments, which completed the personnel of the new body, were in conformity with the statement contained in the Governor-General's speech at the opening of Parliament, that, based upon the recommendations of various experts, the Government proposed to increase the business of the Institute of Science and Industry, and to extend the scope of scientific research in relation to primary and secondary industries.

Commerce Representatives.

Mr. W. J. Newbigin, of Sydney, is managing director of William Adams and Co., who are agents in Australia for a number of British firms, including Vickers and Parson & Co. turbines. He was Past President of the Institution of Engineers, is a member of the Chamber of Commerce Council in Sydney, and representative of the Associated Chambers of Commerce of Australia. He is on the main committee of the Engineering Standards Association. Mr. Newbigin has had considerable scientific training, and is now devoting most of his time to the commerce side of science. He will be the representative of commerce and industry on the new organization.

Professor A. C. D. Rivett, who is 40 years of age, was educated at Wesley College and the Melbourne University. He gained the degree of B.Sc. in 1906, and was Victorian Rhodes scholar in 1907. He took the D.Sc. degree in 1913 and his M.A. at Oxford in 1913. He secured first class final honours at Oxford and Melbourne. He was general organizing secretary of the visit to Australia of the British Association for the Advancement of Science in 1914. During 1915-16 he was the registrar of Australian General Hospitals Nos. 5 and 11; during 1917-18 he was process manager of munitions factory at Swindon, Wiltshire. He became a lecturer in chemistry at the Melbourne University in 1911, associate professor of chemistry in 1920, and was appointed professor of chemistry at the Melbourne University when Sir David Masson retired. He is honorary secretary of the National Research Council of Australia.

REG. 9.4.26

SECONDARY INDUSTRIES.

Cheaper Power Problem.

A meeting of the Secondary Industries Commission was held at Parliament House on Thursday afternoon. There were present Mr. Condon, M.P. (Chairman), the Hons. T. Gluyas and W. Morrow, M.L.C.'s, and Messrs. Anthony, Harvey, Vardon, and Whitford, M.P.'s.

A Petrol Saver.

George Harold During, engineer, of Hackney, was examined. He stated that he had invented a petrol saver. The company controlling it had found difficulty in placing the invention on the market, owing to high manufacturing costs. The saving in petrol was from 20 to 25 per cent. in a series of exhaustive tests. Superheated steam was mixed with petrol as it passed through the carburettor; that gave a more combustible mixture, which increased the mileage obtained and almost eliminated carbonization. A complete absence of carbon in the cylinders was disclosed upon the removal of the cylinder head of the motor car after test runs of 20,000 miles. He produced a plan showing the principles of the engine construction, which he explained. The principles would apply to all types of internal combustion engines, and it was thought that they might also be applied to oil-burning engines.

A Study in Comparisons.

Robert William Chapman, Professor of Engineering at the University of Adelaide, gave evidence with respect to the application of power to secondary industries. He submitted statements supplied by the Adelaide Electric Supply Company of the rates for electrical power in South Australia, compared with those in other States, which showed that for the supply of current for a load of 10 horsepower for 200 hours a month the respective costs were:—Adelaide Electric Supply Company, £15 15/; Melbourne Electric Supply Company, £15 2/; Electricity Commission of Victoria, £11 11/3; Melbourne City Council, £10 8/ (over a small area); City of Brisbane, £14 16/; Perth, £11 5/ (the Electric Supply Company there having secured a very favourable contract from the Government); Tasmania Hydro-Electric, £10 8/; Sydney City Council, £10. Adelaide was at a disadvantage in regard to coal. It was not a large manufacturing centre, and most of the power supplied was for dwelling houses. In Adelaide there were 12 units of power sold for every pound of capital invested, as against 37 units in Melbourne. At present they had practically no available source of power except coal, of which there were only three known deposits, of poor quality, which appeared likely to be used in the near future, namely, Moorlands, Clinton, and Leigh Creek. A commission, of which he was a member, a few years ago investigated the matter, and recommended the use of the Leigh Creek coal in powdered form on the East-West Railway. It was suggested that experiments should be carried out on a specially designed locomotive. If that had been done, it would be possible to keep the mine open, as it provided the best of their coal. Moorlands would be an expensive mining proposition, on account of the over-burden. A committee enquired into the question of its utilization and it was thought that economic results might be obtained for gas producer purposes. The Clinton deposit was rather favourably situated on the gulf for the erection of a power station, for which supplies of condensed water could be made available. If they wished to make use of any of those coals they would have to test them out thoroughly in suitable furnaces. That would cost up to £7,000. Low-grade coal was used to a considerable extent in other countries.

"Not a Sound Condition."

Professor Chapman emphasized the great importance of power in their industries. In America they were utilizing nearly 4 horsepower per operative in their factories. In Australia they were using less than 2 horsepower. In the United States they paid the highest wages; the purchasing power of their wages was the highest in the world, as was also their productivity per man. They did not want to see wages reduced, but if they looked at the curves showing productivity, the capital of the Australian debt, and wages, they would find that wages were rising rapidly; their debt was rising almost proportionately, and money value was increasing, but the productivity as measured in goods produced was decreasing. One felt that that was not a sound condition of things. On the other hand, the curves pertaining to the United States indicated a much more stable position. Their horsepower per operative had been increasing, and their wages were almost proportionate to the horsepower. In Australia they should do everything possible to encourage manufacturers to use power. By their tariff they protected everything which they thought could be manufactured in Australia. Mr. Julius, who had given an interesting address before a meeting of the Institute of Engineers at Hobart last year, pointed out that electricity was a tool by which they could produce, and they should treat it in the same way as they treated tools of trade. Many of the latter were admitted to Australia at considerably reduced rates, while on the other hand all their electrical machinery was highly taxed, with the result that when a manufacturer wanted to instal, say a motor, he probably had to pay £150 for an article which might otherwise be purchased for £100. That was not encouraging their manufacturers to use power, and the greatest thing they could do for their industries was to use more. If they added the amount of duty paid on electrical appliances to the wages paid to men employed in manufacturing electrical machinery in Australia, it would mean that the community was paying about £550 per man per year. Mr. Julius had further stated that the right thing to do was to allow their electrical appliances to come in duty free, and if it were regarded as necessary for their purpose that they should encourage certain phases of electrical industries in Australia, let them do it by bounties instead of by the customs tariff. That was a matter worth looking into. If they could reduce the cost of their power and secure a bigger market, the witness saw no reason why South Australia should not become a large manufacturing State. Mass production enabled greater power to be used, and he did not think they could compete with other countries in the manufacture of motor car engines, for instance, but they should be able to treat their own raw materials. There were great possibilities in regard to wool. They could have centralized stations for the production of cheaper power.

WAS HORACE A GREEK?
From G. G. NEWMAN.—If perambulation in the future some scholar digging in the mine of Horatian lore should unearth a fact to throw light on the racial descent of Horace, and definitely prove him a Greek, then the big battalions will be discomfited and the professor's hypothesis become truism. Reading over his courteous reply, in which he sedulously suppresses all acrimonious acerbity, led away by the lustre and resplendence of his language, and the glamor of his eloquence, one feels like paraphrasing Agrippa's reply to Paul, and saying, "Almost thou persuadest me to be a Grecian" in this matter. But, however hard it is to resist the temptation to let rhetoric displace criticism, we cannot get away from fact. Dr. Schmitz, a former classical examiner in the University of London, in his "Latin Literature," says, "The discussions on the life of Horace, on the time when the different poems were written, and the editions of his works, are countless." Such being the case, scholars must agree to differ. If, when bathing in the waters of mansuetude and truth, which roll from wall to wall in the halls of learning, a professor becomes obsessed with a certain idea, a little healthy discussion clears away any hallucination which may exist. With regard to the professor's comment on bouquets and cabbages, we can only say that his career, from the time when, after his education at St. Peter's, York, he won the Walker Prize in classics when he was 22, and became classical lecturer at Ormond College, Melbourne, a year later, coming to Adelaide 20 years ago, has been, "roses, roses all the way," and cabbages have been very scarce vegetables, as they are to-day. I am sorry the professor had to excuse himself about the ladies. If the time should ever arrive—which, pray God, it never will—when he does not find them "attractive animals," it will be a sad day for him, or any other man for that matter. The large number of ladies who attend his classes and lectures is a sufficient evidence of his own popularity among the fair sex. I have one regret, and that is that the professor did not finish his sentence about Shakespeare. Perhaps it was "Was Shakespeare a German?" We look forward to a further pronouncement on what would undoubtedly be an interesting topic. These discussions keep us moving. And as Wilhelmina Stitch very beautifully and helpfully says, "Keep moving ahead, or your soul will die, and beauty evade your heart and eye. No matter at all that your pace be slow so long as you upward, upward go into a finer atmosphere, where ideals live and visions clear, and Goodness and Truth have taken firm stand, and folks to folks stretch a loving hand. For this be the measure of our success, the measure of all life's happiness; just how well we have moved ahead; or just how early our soul was dead."

REG. 10.4.26

REGISTRATION OF ENGINEERS.

Efforts made to secure the registration of engineers by Act of Parliament were mentioned in the annual report, adopted at a meeting of the Institute of Engineers, Adelaide division, on Friday night. It was stated that the committee had not lost sight of this important matter, but feeling that there was very little likelihood of obtaining at present an Act of Parliament embracing the full wishes of the institution, they considered it desirable to attempt first to secure legislation on the lines of Acts now in force in the eastern States to ensure the competence of men appointed as engineers to the larger municipalities and district councils of South Australia. To this end, the November meeting of the division was devoted to the discussion of a motion submitted by Professor Chapman, "It is desirable that legislation be introduced making it compulsory that municipal and district councils having incomes over a stipulated amount should employ only qualified engineers." Invitations to attend the meeting and take part in the discussion were sent to all those considered likely to be particularly interested in the matter, including all the corporations and district councils in the metropolitan area, and the result was a unanimous vote in favour of the resolution. The next step would be a deputation to the Chief Secretary to urge the inclusion of provisions on the lines indicated in the next Bill brought before Parliament dealing with local government matters. The committee regretted that the deputation had not yet been arranged, but in view of the extra strain imposed upon Ministers by the special autumn session of Parliament, it seemed advisable to postpone it until after that session.