

more important than either—namely, the man power, or the fighting strength that Germany has relatively to the Allies at this particular juncture of the war. She has not succeeded in destroying the army of any one of the Allies. The Belgian Army is still fighting, the Serbian Army has recovered itself, France has not yet begun to draw on her 1917 reserves, Great Britain has raised her Imperial Army from 250,000 to 5,000,000, Russia could put into the field an almost unlimited number of troops if she had the means to equip them, and Italy is fighting with renewed strength against Austria, and dealing her heavy blows.

—Passed the Apex.—

"The great question now before the belligerents, and the issue upon which this war depends ultimately more than anything else, is the relative strength of the efficient fighting forces of either side. I use the word 'efficient' advisedly, because when a military Power begins to fall back upon its inefficient or ill-trained men, it places itself in a very precarious position. Now, there is good reason to believe that Germany has already passed the maximum of her efficiency in regard to trained men. She is apparently already making use of the 1917 reserves, and is being pressed upon all fronts. The progress made by Russia on the eastern fronts as well as the advance made by the Allies on the west, is a clear indication that she is no longer able to resist the pressure of the increasing forces of the Allies.

—Maybe a Year!—

"Germany's policy has been to strike as hard and as quickly as possible, and she has shown no disposition whatever to spare her troops in the attacks she has made. If Germany had succeeded in segregating the Allies this would have been right, but she did not succeed, and now she is paying the cost, and by all reasonable grounds of human calculation, that cost ought to be unavoidable defeat. Russia and Great Britain have mighty reserves, which they can steadily bring into the fight, and, what is more important, these are reserves of efficient men. The reserves that Germany brings up henceforth will be more and more inefficient, and cannot equal the numbers of those available to the Allies. This is the paramount factor that will determine the result of the war. It may go on for another year, but there can be only one end to it, and it seems to me that Russia is adopting the strategy which is best calculated to reach that end in the shortest and most successful way. It looks as though she intended to detach Hungary and so break the communication between Germany and the Near East. If she can do that, and it seems likely enough that she will, then the Near East problem will soon be settled. It would not even need the help of Roumania, if a junction could be forced between Salonika and the Russian forces through Hungary. Once that eastern problem is settled, then not only will the Dardanelles be open, providing means for the introduction of munitions of war, but a great number of troops will be released to serve the Allies on the more restricted frontiers of operation.

—Beaten: Not Starved Out.—

"It would seem that the tide of battle has now turned against the Central Powers, and as if the future were a matter of closing in, and further in, upon Germany. Then land power and sea power should be able to work together for the ultimate defeat of the Teutons. I do not think that the Germans will ever be starved out. They have wide stretches of country, and they understand intensive agriculture, but by the blockade the British Fleet will make the strain greater and greater, and the difficulties of getting raw material will be more and more increased. The nation will thus become weaker and weaker, and if the war is not settled by internal revolution, it will eventually be ended by a decisive defeat on land correspondingly to the battle of Waterloo in the great struggle against Napoleon. But, just as Nelson contributed to that final defeat by cutting off Napoleon's communications with the world, so Admiral Jellicoe will have prepared the way for the end by crippling Germany's trade, and exerting more and more pressure until she is no longer able to bear the shock in the final and combined attack upon land. The combination of arms on land and sea has been vastly important in warfare in the last 2,000 years, and the co-operation of these two forces is no less important now than it has been at any time in the past."

Advertiser

5-8-16

The council of the Adelaide University has awarded the Angus engineering scholarship, of the value of £200 per annum, tenable for two years, to Mr. Cyril W. Goodman, B.E. Mr. Goodman, who is a son of Mr. W. G. T. Goodman, graduated as a Bachelor of Engineering in 1915. He has enlisted for active service.

THE BOTANIC GARDEN.

INTERESTING REPLIES TO QUESTIONS.

The Botanic Garden loomed impressively upon the notice paper placed before the House of Assembly on Tuesday afternoon, for no fewer than 20 of the set questions related to the popular North terrace institution. Mr. Hague opened with a budget of 15. He wanted to know first whether it was a fact that the Commissioner of Crown Lands, in his communication to the board dated July 19, wrote "that the board call for applications and appoint Director as empowered under the Act?" The Commissioner, in reply, said:—"This statement is a half truth. The term was coupled with other terms upon which it was conditional. He added that the board did not accept his proposals, and therefore the appointment of Professor Osborn was not made "in face of this." He (the Commissioner) had a number of applications from aspirants for the Directorship, but they were not referred to the Board of Governors of the Garden. The reason was that "the power of appointment rests with the Government, and no other appointment could be made which would give effect to the definite scheme of improvement in management which the Government approved."

—Contention Justified.—

Regarding his justification of the contention that Professor Osborn was a civil servant, although his name did not appear on any Government paysheet, the Government provided the money which was paid to the Professor for services which he rendered to the Department of Agriculture. The next question put by Mr. Hague was as follows:—"As the Commissioner states that Professor Osborn is not a classified civil servant, how does the Government reconcile its attitude with the civil servants regulations, which state—"That the Director of the Botanic Garden Board shall be a first-class civil servant, receiving not less than £450 per annum?" This question, the Commissioner stated, so bristled with mis-statements that the only answer was—"There are no civil servants regulations in existence. The Civil Service regulations do not contain the statement mentioned. No minimum of £450 per annum is fixed by Act or regulation for such position."

—Mr. Crawford's Appointment.—

Mr. Hague next desired to know "Is it a fact that when the Board of Governors of the Botanic Garden recommended Mr. R. Crawford, who had done excellent work as an *ex officio* member for the Royal Agricultural Society, that the Government ignored the board's recommendation and appointed Mrs. Osborn instead?" The Minister's response was as follows:—"The board recommended that the gentleman named, who was already a member of the board *ex officio*, should be permanently appointed. This recommendation was not acted upon because the board exceeded its duty in making any recommendation; because such appointment would have left the Agricultural Society without the direct representation which the Act provided; because the Government had decided to give effect to its declared policy of giving representation to women on all boards. Mr. Crawford is still a member of the board." The Commissioner added that the Government did not give the board any reasons for its action because it was not answerable to the board. Professor Osborn was appointed on May 10, 1915. It was not a fact that the Commissioner of Crown Lands consulted with individual members of the University staff, the Royal Society, and the British Science Guild. Neither was he aware that several "of the same persons, including Professor Osborn," were prominent members of all those bodies. The two last questions (14 and 15) the Commissioner concluded were founded on the false assumption answered in the previous question.

—Reflection on Professional Reputation.—

Mr. Laffer followed with a quintet of questions. In reply to the first the Commissioner said he had received from the Chairman of the Board a protest against the appointment of Professor Osborn. Mr. Laffer's next three enquiries were—"What proportion of Professor Osborn's time is devoted to vegetable pathology on behalf of the Department of Agriculture for the £600 per annum paid to the University for his services? In the three or four years Professor Osborn has been paid this sum what important investigation has he undertaken other than identifying ordinary types of fungus diseases? During that period, how many specimens of fungus

diseases are recorded as being determined by him?" In answer to these the Commissioner stated that the terms upon which Professor Osborn was appointed by the Peake Government, and the other enquiries contained in questions 2, 3, 4, and part of 5, were contained in a report which was too detailed to read to the House, but which was available if the hon. member cared to peruse it. Finally the member for Alexandra wished to learn—As Consulting Botanist, how many specimens of weed plants had Professor Osborn identified for the Department of Agriculture, and how many had he failed to identify? (a) How many had he sent to Mr. Holtze. (b) How many to Mr. Black. (c) How many to Mr. Maiden for identification by them. The Commissioner replied—“Regarding the second part of this question, I endorse the report of the Director of Agriculture (Professor Perkins), which is as follows:—‘I respectfully recommend that it be not submitted to Professor Osborn for reply, and this on the following grounds. The enquiries are intended to reflect on professional reputation; and if submitted to him he has, in my opinion, a perfect right to refuse to reply to them. When a question is put by the department to an expert the only point of importance is that we should get a correct answer. It is no concern of ours as to the means adopted by the expert to formulate a correct answer. He may choose to consult works of reference or individuals for confirmation of his opinions, or to help him form them. This is what any man, careful of his reputation, is certain to do.’”

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10. 8. 16.

BOTANICAL GARDEN CONTROVERSY.

Mr. Laffer asked the Commissioner of Crown Lands in the Assembly on Wednesday if the Government would refrain from making the appointment of Director of the Botanical Garden until the House had had an opportunity to consider the matter. Mr. Goode asked him to give notice.

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THE BOTANIC GARDEN.

From F. W. Bowles, Payneham:—“The appointment of Professor Osborn to the position of Director appears to have at least the effect of galvanizing a little life into the Board of Governors. Why were applications for the position of director not advertised for at least six months ago? The board knew perfectly well that the present Director was retiring at the end of June last; yet, instead of calling for applications for a new Director ready to take up the duties at that time, they have waited until the Government has stepped in and made an appointment which apparently is not meeting with the approval of the board, and which is not in the best interests of the Garden. Mr. Brooker, in his letter to *The Register* on August 4, says:—‘The board strongly urge that to secure the best man applications should be called.’ Why have the board not called for applications, not only in this State, but also throughout the Commonwealth; and how do they hope to secure the best man without doing so? Mr. Brooker continues:—‘I have never been stupid enough to say that the Garden is wanted for a public reserve only.’ Yet we find that is just what our ‘Botanized’ Garden is at present—a public pleasure resort. Botanical interest has become secondary, and this was not what the Garden was established for. A comparison of the Garden now with what they were in the late Dr. Schomburgk’s time leaves no doubt in the minds of the observant public regarding the manner in which the Garden has deteriorated botanically. Has Mr. Brooker a copy of ‘The Catalogue of Plants in the Adelaide Botanic Garden,’ published by the late Dr. Schomburgk in 1878; and, if so, will he tell the public what proportion of that magnificent collection are in existence to-day? I am pleased to note Dr. Angus Johnson’s remarks:—‘What the board desire is that absolutely the best man obtainable, irrespective of any other consideration, shall be chosen;’ and I trust that the board in making the appointment will carry out that suggestion. The first qualification necessary in a director of ‘botanical’ gardens is that he should be an expert in plant nomenclature; and, secondly, he should be a thorough landscape gardener. The possession of these two qualifications enabled the late Mr. Guilfoyle to bring the Melbourne Botanic Gardens to their high standard of excellence. He knew his plants, and he knew where to place them—the two greatest factors in the making of a successful Director. Let the board call for applications throughout the Commonwealth, offer a liberal salary, and see if another Director possessing the above qualifications cannot be found in Australia.

Register 11.8.16

SCIENCE AND INDUSTRY.

Important Advisory Work.

A meeting of the Advisory Council of the Commonwealth Institute of Science and Industry was held in Melbourne on August 4, and was attended by representatives from each of the States. Two reports were presented by the executive committee. These show that a number of researches upon pressing problems of Australian production have been already initiated and a large amount of preliminary work in respect to the organization, in Australia, of science as applied to industry has been set on foot and valuable data have been collected. Thus a census has been taken of scientific personnel and equipment available for research work in universities, Government laboratories, and other institutions.

—Problems Under Review.—

Another census of industries and their problems is being prepared through the State committees, and circular letters have been sent to all universities and higher technical schools to ascertain what is being done in the provisions for training of investigators. Enquiries have also been made from the public service commissioners of the States regarding the possibilities of training experts in Government departments. With regard to specific problems for investigation, the executive committee has, in such case, ascertained who are the best qualified investigators and appointed them as a special committee, in some cases adding an expert to give his whole time to the problem under the special committee. Researches have thus been begun into the production of chrome and tungsten alloys with iron, which are important in connection with the production of high-speed tool steels. A special committee is enquiring into the production of potash salts. There are large deposits of alunite in Australia, a mineral which has commercial value as a source of potassium sulphate and of alumina. Since the German supplies of potash salts have been cut off, alunite has acquired a greatly enhanced value, but its treatment in Australia has not been attempted. The possible commercial utilization of posidonia fibre, of which there are immense deposits in Spencer's Gulf is being investigated, while another special committee is enquiring into the mode of occurrence of gold in quartz, with a view to cheapen deep prospecting. One of the most important problems affecting the pastoral industry in Australia is the tick pest in cattle. A special committee has been appointed to review the whole position. Similar action has been taken in regard to the nodule disease in cattle. A grant has been made to complete investigations into the cultivation of yeasts. The results already obtained afford hope that it will be possible to so shorten the period of the maturing of dough as to contribute materially to the solution of the day-baking difficulty. A committee have been appointed to deal with the problem of standardization of physical apparatus used for educational purposes. Other matters to which the executive committee has taken similar action, or to which they have given attention, include the production of aluminium, the cultivation of cotton and the problem of a mechanical cotton picker, the prickly pear pest, the brown coal of Victoria, wheat selection and breeding, indigenous grasses and salt bushes, the standard for alcoholometry and forestry and timber industries.

—Interstate Visits.—

The executive is also in touch with other problems which it has not yet had time to discuss in detail. A visit was paid by the committee to Sydney in July, and the results were so instructive that it is intended to make visits to other States. From its experience during the past few months the committee is of opinion that the institute's utilities will be limited only by the amount of money at its disposal, and by the number of trained scientific investigators available.