

Mr. Fenner outlined the trend of technical education in other States and countries. He considered it important that a boy should be guided into the trade for which he showed special aptitude, and this was a direction in which junior technical schools would be of service. Statistics showed a marked decrease in the number of indentured apprentices in all trades, and a greater responsibility thus devolved upon the technical schools. It was desirable that the boy's workshop experience should be supplemented by carefully selected practical exercises, as well as by instruction in mechanical drawing, mathematics, and applied mechanics.

Mr. Thompson Green advocated the encouragement of the apprenticeship system, with proper safeguards, and the attendance of apprentices at a technical school for theoretical instruction. The "fadist" should be discouraged, as, although he might acquire dexterity in the use of tools, he was not aiming at becoming a skilled artisan.

Mr. Perry assured the committee that it could rely upon the co-operation of employers in the endeavour to provide for the adequate training of apprentices. The shop should be supplemented by the school, but the instruction should be given in the evening, as the employers could not allow their apprentices time off to attend day classes.

Mr. Mouldea stated that in his experience with the Tramways Trust he had found that boys were able to render better service after having attended classes at the School of Mines. Although there were difficulties in the way of allowing boys time off during the day, he thought it would eventually be done.

Mr. Deckerfield said he anticipated a large increase in the population of Australia after the war. With increased population specialization in the workshops would become the rule, and a greater demand would be made upon the technical schools to give the artisan a general training.

The meeting carried the following resolution:—"That this committee affirms the desirability of the curriculum for trade classes including practical work as well as theoretical subjects." "That in order to promote closer relationship between the shops and the school, this committee recommends that employers be furnished with periodical reports on the progress of their apprentices." "That, in view of the increased attendance of students in the fitting and turning department of the School of Mines, the Government be strongly urged to provide additional accommodation and equipment."

#### JUNIOR TECHNICAL SCHOOLS.

Messrs. MacGillivray and Price, M.P.'s, for Port Adelaide, have been informed by the Minister of Education that action is being taken to establish the first junior technical school, and consideration will be given to the claims of Port Adelaide and other districts in due course.

Daily Herald  
12.3.17

## AFFORESTATION

### GOVERNMENT'S NEW PROPOSALS.

#### SCHOOLS FOR WOULD-BE WOODSMEN.

At the Forestry Conference, which was held in Adelaide coincidentally with the Premiers' Conference last year, it would be recognised that the question of providing a thorough training for students had to be solved before anything else could be done in the way of improving forestry development. New South Wales, as well as South Australia, is taking steps to put forestry schools into active operation, but South Australia has an advantage over the mother State in that a school was established here in 1912, and that the machinery is already provided. A new scheme is being organised which while making some radical alterations in the system of training, is based upon the policy which in the main has been operating successfully here for three or four years.

"The encouraging revival of public interest in the subject of forestry manifest throughout Australia in the past year or two," said the Attorney-General (Hon. J. H. Vaughan) on Saturday, "gives ground for hope that a brighter day is dawning in the development of our great timber resources. A serious timber shortage threatens us more and more every year, and calls for a vigorous and settled policy of progress, in place of the drift and indifference which have generally characterised the attitude in the past, alike of Governments and the general



public. To anyone who gives the least attention to the subject it must be abundantly clear that, if we are to be in a position satisfactorily to meet the everlasting demands of the future, we cannot afford to lose a single day in the conservation of our native timbers and in the extension of our plantation and regeneration areas. The financial stringency now prevailing makes it impossible to launch out in many directions admittedly desirable in ordinary times, but there is no reason why we should not at once proceed to lay the ground plans for the future, so that, when normal conditions return, forestry in this country may progress on broader and sounder lines than have hitherto been possible.

"The Forest Department of South Australia, in spite of the great disabilities under which it has labored, can boast a record of work accomplished at least equal to that of any other State in the Commonwealth. We have reached a stage of development, however, when, if we are to keep pace with other States and countries, we must replenish the forest service with a sufficient number of men, sufficiently trained and equipped, for the difficult tasks they will have to undertake. No permanent advance can be made until the question of forest education has first been settled.

"The forest school at the University of Adelaide, established in 1912, has already turned out six efficiently trained assistant foresters with degrees or diplomas. Of these Assistant-Forester (sergeant) McKail, B.Sc., sacrificed a life of brilliant promise in the cause of his country. The other four officers mentioned are at the front, but at the conclusion of the war will take up their duties as assistant foresters. The terms under which they entered upon their course of training are varied in several respects in the present prospectus, and the boy now entering the service will enjoy certain advantages not contained in the previous conditions.

"It must be admitted that the boy who decides to devote his life's energies to forestry must be willing to renounce some of the social advantages accruing in other occupations. He must be prepared to live in the forest, and to deny himself, for some years, at any rate, the attractions of city life. He will find, however, that forest life and work will compensate many times over for the disabilities. The State guarantees to him stability of employment and an opportunity, should his work prove satisfactory, of rising to the highest positions in the service.

"The conditions set out in the prospectus open two doors of entrance into the department. A boy leaving school has the choice of entering either as a cadet or as an apprentice. If he enters as an apprentice he is taught his trade, like an apprentice in any other industry. After gaining knowledge and experience of forest life and work he may round off his practical training by a course of scientific study, and is not barred from changing over to the other branch of the service. This other branch is the professional division, which a boy enters who wishes to take up forestry as a profession. After giving the necessary years to study and application, taking the prescribed course of training at the university school and obtaining his degree as a bachelor of science, he will be guaranteed a position as assistant forester, from which he will rise as vacancies occur to the post of forester, and may aspire to become one day even chief forester of the State. Provision is also made in the prospectus for the returned soldier, who may become either a cadet or an apprentice, although he is past the age prescribed in other cases.

"The profession of forestry offers attractions not to be found in any other sphere of industry. The infinite variety of the work, the open-air life, the healthy atmosphere, and the general environment in which he is called upon to grapple with the practical problems of timber production from seed to harvest, supply an abundant interest and make for the fullest development of a man's mental, moral, and physical qualities. I am convinced that when the attractions of forest life become appreciated at their true value there will be little difficulty in filling all available vacancies with suitable men, and that in the course of a few years the Forest Department will possess a staff of enthusiastic and energetic officers with the requisite experience and training to enable them to manage the forests under their care on the most scientific and businesslike lines and serving their country under the best possible conditions.



## ENCOURAGING FORESTRY.

## Developing Timber Resources.

A well-considered comprehensive scheme in connection with a large policy in forestry was expounded by the Attorney-General and Commissioner of Forest Lands (Hon. J. H. Vaughan) on Saturday morning. For some time the Minister and the Lecturer in Forestry (Mr. H. H. Corbin, B.Sc.) have been giving the subject close attention, and the proposals which have now been adopted have been designed to make the profession more attractive and to lead to an important development of our timber resources. "At the Interstate Conference held in Adelaide during the early part of last year," Mr. Vaughan explained, "it was recognised that the problems associated with education and training have to be solved before anything else is done. In New South Wales, as well as in South Australia, steps have been taken to put forestry schools into operation. We have had our school since 1912, and the machinery is already provided. The new scheme makes some very radical alterations in the system of training, but it is based on the policy which, in the main, has been successfully prosecuted here for three or four years.

## —Serious Shortage.—

"The encouraging revival of public interest in the subject of forestry manifest throughout Australia in the past year or two gives ground for hope that a brighter day is dawning in the development of our great timber resources. A serious timber shortage threatens us more and more every year, and calls for a vigorous and settled policy of progress, in place of the drift and indifference which has generally characterized the attitude in the past, alike of Governments and the general public. To any one who gives the least attention to the subject it must be abundantly clear that, if we are to be in a position satisfactorily to meet the ever-increasing demands of the future, we cannot afford to lose a single day in the conservation of our native timbers and in the extension of our plantation and regeneration areas. The financial stringency now prevailing makes it impossible to launch out in many directions admittedly desirable in ordinary times, but there is no reason why we should not at once proceed to lay the ground plans for the future, so that when normal conditions return forestry in this country may progress on broader and sounder lines than has hitherto been possible. The Forest Department of South Australia, in spite of the great disabilities under which it has laboured, can boast a record of work accomplished at least equal to that of any other State in the Commonwealth. We have reached a stage of development, however, when, if we are to keep pace with other States and countries, we must replenish the forest service with a sufficient number of men, scientifically trained and equipped, for the difficult tasks they will have to undertake. No permanent advance can be made until the question of forest education has first been settled.

## —Resident Foresters.—

"The forest school at the University of Adelaide, established in 1912, has already turned out five efficiently trained assistant foresters with degrees or diplomas. Of these Assistant Forester (Sgt.) McKail, B.Sc., sacrificed a life of brilliant promise in the cause of his country. The other four officers mentioned are now at the front, but at the conclusion of the war will take up their duties as assistant foresters. The terms under which they entered upon their course of training are varied in several respects in the present prospectus, and the boy now entering the service will enjoy certain advantages not contained in the previous conditions. It must be admitted that the boy who decides to devote his life's energies to forestry must be willing to renounce some of the social advantages accruing in other occupations. He must be prepared to live in the forest, and deny himself, for some years, at any rate, the attractions of city life. He will find, however, that forest life and work will compensate many times over for these disabilities. The State guarantees to him stability of employment and an opportunity should his work prove satisfactory, of rising to the highest positions in the service.

## —Two Doors Open.—

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apprentice he is taught his trade like an apprentice in any other industry. After gaining knowledge and experience of forest life and work he may round off his practical training by a course of scientific study, and is not barred from changing over into the other branch of the service. This other branch is the professional division, which a boy enters who wishes to take up forestry as a profession. After giving the necessary years to study and application, taking the prescribed course of training at the University School, and obtaining his degree as a Bachelor of Science, he will be guaranteed a position as Assistant Forester, from which he will rise as vacancies occur to the post of Forester, and may aspire to become one day even Chief Forester of the State. Provision is also made in the prospectus for the returned soldier, who may become either a cadet or an apprentice, although he is past the age prescribed in other cases.

#### —An Attractive Sphere.—

"The profession of forestry offers attractions not to be found in any other sphere of industry. The infinite variety of the work, the open-air life, the healthy atmosphere, and the general environment in which he is called upon to grapple with the practical problems of timber production from seed to the harvest, supply an abundant interest, and make for the fullest development of a man's mental, moral, and physical qualities. I am convinced that when the attractions of forest life become appreciated at their true value there will be little difficulty in filling all available vacancies with suitable men, and that in the course of a few years the Forest Department will possess a staff of enthusiastic and energetic officers with the requisite experience and training to enable them to manage the forests under their care on the most scientific and business-like lines, and serving their country under the best possible conditions."

#### —The Prospectus.—

The prospectus of the School of Forestry sets out, *inter alia*:—

In the Commonwealth of Australia there are at present 159,000 square miles of forest. Many of these areas are very valuable, and are worth in the aggregate considerable sums to the Commonwealth. The importance of forestry is becoming widely recognised, and it is now realised that the best results cannot be obtained unless modern scientific methods are brought to bear on forest land. As a result, the several State Governments of the Commonwealth are spending considerably more money on their forests than hitherto. Where large sums are involved it is clearly advisable to have skilled men to manage the business in the most efficient manner. Thus it happens at the present time that there are openings for a number of young men who have an inclination in the direction of an applied science which entails a certain amount of out-of-door employment on the land. These men must, however, be prepared to undergo the necessary training.

#### —Facilities for Training.—

In South Australia there are facilities for students to undertake, at very moderate cost, a thorough study of the principles of forestry. The training consists of an excellent mixture of university work with an equal amount of outside practical forestry in the State Department of Forests under the immediate supervision of the Lecturer in Forestry. During the academic year students attend lectures at the Adelaide University, and during all the vacations they are engaged in work in the South Australian State forests. This State is an excellent training ground for foresters on account of the fact that there are forests in many parts of the State, from the dry north to the more humid south-east. It plants annually considerable areas of softwoods, and has also some very fine natural regeneration forests, and the climatic conditions in certain parts necessitate careful methods. There is no doubt that other parts of the Commonwealth are more heavily wooded at present, but ultimately all forests will come under treatment similar to that which our students are being taught to apply here. Apprentices will be admitted, as required to the forest service between the ages of 14 and 18, if of good report, subject to showing evidence of general physical fitness and ability to pass the entrance test in reading, writing, and arithmetic. Pay and promotion, subject to good report on work and other conditions being fulfilled, will then be as follows:—Apprentices during the first 12 months' service will receive 24 per week; apprentices during the second 12 months' service will receive 27 per week. The subsequent scale will then be according to age:—Apprentices—Age 14, 24 per week; 15, 27; 16, 30; 17, 33. Forest Workmen—Age 18, 36; 19, 39; 20, 42; 21, 45; forest foremen, as vacancies occur, £100 to £200 per annum; superintendents, as vacancies occur, £200 to £250 per annum.

#### —Cadets.—

Students between the ages of 16 and 22 who have matriculated, on the production of a good report and having been passed as physically fit for the forest service, will be admitted periodically in limited numbers as required, and work as apprentices in the forest for one year, receiving pay at the following rates:—Age 16 to 18, 28 per week; 19 to 20, 42; 21 and over, 48. Any member of the service who has been in the A class for two years and has reached the grade forest workmen, may be admitted direct to the Forest School subject to having passed the matriculation examination of any recognised university. On substituting