


above mentioned, the "sand plains," do not offer as attractive a proposition, but there can be found by research through other countries of the world possessing similar country some far more profitable use than is at present being made of these rolling downs of ours. A typical example of this sort of country may be seen between the Midland Railway and our western seaboard, a very large proportion of which area is unoccupied, and under present conditions likely to remain so. At a slight expense experimental plantations of trees (such for instance, as *Pinus Canariensis*) likely to succeed in such a class of land could be made either under the control of the Commonwealth or, preferably, administered by our own State Forestry Department, which should go far to ascertain the future value of these so far almost useless portions of our heritage. There remains the consideration of the enormous area of land comprised in our third class. Much of this area is held under pastoral lease, and the difficulty of dealing with this class of country is recognised by the low rental demanded and the lightness of the conditions of tenure imposed upon those who hold these lands. Experiment in improving the productivity of this part of the State is rendered comparatively easy by the fact that most of our goldfields are situated in this zone.

Every centre of population possessing a school, a post office, or even a lock-up, offers a possibility of experimental plots at a minimum of cost by utilising the services of those, to be found in every community, however small, who take an interest in the enriching of the districts where their lot in life has found them, and who are willing to that end to help and encourage judicious effort. In these scores of thousands of square miles of sparsely stocked and still more sparsely populated lands any improvement in the stock-raising capabilities of the country means an immense addition of wealth to the community, and those who even initiate such improvement will have done much to carry out what should be an ideal to all of us, to leave the world the better for our life and work. It may be argued that the subjects dealt with in this very sketchy article can

scarcely be legitimately assigned to the care of a Forestry Department, but a little reflection will show that amongst the numerous branches of the State service there does not exist one more suited for the purposes indicated. The main essential in this regard, as indeed is the case with most of the objects of scientific forestry, is, first of all, to define a wise and suitable policy, and men to take such steps as will ensure that this chosen policy shall be continuous. Our vacant spaces offer a problem to us that is most interesting; its solution must necessarily be slow and tedious. So much the greater, therefore, is the need that an early start shall be made with our task of solving it.

A Forest Act for Western Australia.

(By *C. E. Lane-Poole, Conservator of
Forests, W.A.*)

 **T**HE three main principles on which a sound forest policy depends can only be established and maintained by the aid of a legislative enactment. The three principles are:—

1. Demarkation and permanent reservation of the prime timber country.
 2. The regulation of the cutting of timber so that only that quantity is cut annually which can be replaced by the natural growth of the forest.
 3. The improvement of all cut and semi-cut out areas with a view to assuring the regeneration of the best species for future cutting.
1. It is clear that unless power exists under an Act it is impossible to reserve permanently any forest country.
 2. While a forester may to-day lay down in a "Working Plan" the maximum annual output of a forest, what is to prevent the powers that be from altering that working plan and increas-



KING KARRI 242 FEET HIGH 40 FEET GIRTH

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ing the output to such an extent as to destroy the forest? A special section is required under an Act to protect the forester's working plan.

3. To improve the cut-out areas and assure if possible a better supply of timber in the future, money is required. The revenue of the forests which up to now have been engulfed by the Treasury must go back into the Forests to make up the wastage of the saw-miller.

A Forest Act is required to make the appropriation of the necessary funds for forest work possible.

OUTLINE OF A FOREST ACT.

The Act may be divided under the following divisions:—

- a. Reservation.
- b. Forest Authority.
- c. Forest Working Plans.
- d. Financial.
- e. Offences.
- f. Repeal of old Acts and protection of existing rights.
 - a. The reserves may be divided under two heads:—Permanent Reserves and Temporary Reserves.

The first are reserves made in the prime timber country about which there can be no shadow of doubt that they are required for forestry purposes for all time. These reserves must be protected by the full force of law, and only by the will of both Houses of Parliament should their cancellation be possible.

The temporary reserves will consist of country on the edge of the main timber belts—country which, while carrying marketable timber to-day, will be required for agricultural purposes once the timber is removed. These reserves do not need the same protection, and should be revocable by the Governor-in-Council on the recommendation of the forest authority. The classification of the forests which is now in

progress has for object the delimiting of the Permanent and Temporary Reserves; until this classification is completed the whole forest belt of the South-West should be declared a temporary reserve.

b. Forest Authority.

Once the forest assets of the State are reserved and protected they must be vested in a Responsible Minister of the Crown, who would also have charge of the administration of the Forest Act. He will require a forest department composed of a number of trained foresters—a department, in fact, capable of undertaking the work of putting the forest assets to rights and assuring the future of the timber industry. The importance of continuity of policy is greater in the science of forestry than in any other. It takes a very long time for a forest to grow, and changes in the policy during the growth of the forest generally result in disaster. Ministers of the Crown hold the reins of office for only very short periods of time when compared with the life of a forest, and it is essential, therefore, that the permanent head of the Forest Department be so appointed that possibility of changes in the Government affecting his forest policy be made as remote as possible.

c. Working Plans.

The continuity of forest policy is further assured by the inclusion in the Act of a section which safeguards the forester's "working plans." A Forest Working Plan is a written detailed scheme, setting forth the method and procedure to be adopted in working a piece of forest country, be it cutting, planting, thinning, or fire-breaking. A "Working Plan" once laid down must continue in force until the permanent head advises some revision. In practice the plans are laid down for the duration of one revolution of the forest, that is to say, for a period equal to the time it takes a seedling to become a mill log, while revisions are provided for every 10 years. While the Forestry Department may revise a "Working Plan" it should be made as difficult as possible for any outside influence or interest to alter the provisions of such a plan.

d. Financial.

Up to date the forests of Western Australia have yielded close on half a million pounds' net revenue. Not a penny has been spent on the forests. The Forest Department as it exists is a mere tax-gathering machine. This suicidal policy must cease, and in the future sufficient percentage of the revenue must be appropriated for forestry work to enable the department to lay down and carry out working plans and so maintain principle "three" of the Forest policy. Also, since Western Australia possesses no forests of soft woods, it will be necessary to provide an annual appropriation to cover the cost of planting a sufficient area to meet the requirements of the State. The funds for plantation work must not, however, come out of the revenue derived from the jarrah and karri forests, but should be provided from loan monies. Plantations of pines are most certainly "re-productive works"; they are fine investments, and are, therefore, beyond doubt loan estimate items.

e. Offences.

The greatest forest offence is setting fire to the forest, and this should be treated as an indictable offence. A man burns a shed in your back yard, and he is charged with arson; he sets fire to a square mile of forest and destroys thousands of pounds' worth of State property, and he is fined 5/. The penalty for the careless use of fire to a forest should be made as heavy as possible, while the deliberate fire-setter should be charged with arson. Other offences are all of the nature of infringements of the rules under which the forest produce may be removed, and require no special comment.

f. Repeal of old Acts with protection of Existing Rights.

While it must be admitted that the system of granting timber concessions, leases, and permits in the past was a very unsound one, it would be a breach of faith to interfere with the existing rights of the conces-

sionaire, lessee, or permit holder. Their rights must subsist until they expire by the effluxion of time. The Forest Act should contain a section repealing all previous Acts, but safeguarding the rights of those who still hold timber land under the repealed Acts.

A Few Figures About Western Australian Forests.

The Forestry Department of Western Australia is one which has contributed handsomely to the revenue of the country. Separate accounts of revenue and expenditure of the department have been kept since 1865, and every year since then, without a single exception, the Department has handed over a handsome balance to the Treasury. In 1865, the balance of revenue over expenditure amounted to £2067, and it has risen rapidly year by year until 1914, when the credit balance was £40,946. Even in war times the department has liberally contributed to the Treasury needs. In 1915, it handed over a net amount of £36,856, and in 1916, £20,245. Since its establishment the Forestry Department has paid into the consolidated revenue a sum close on half a million pounds sterling. But the forests themselves have not had a penny expended on them in the way of regeneration work or conservation of the kind that is absolutely necessary if they are to become a permanent source of wealth to the country.

Some idea of the money value of the timber taken annually from the forests will be conveyed by the following figures:—

In the year ended December, 1916, there were milled 6,242,600 cub. ft. of timber, and the hewn total was 728,350 cub. ft. To that must be added round poles, piles, and beams, which contributed 91,600 cub. ft. to the total. Mining timber must also be added, and the total of this produced in the year, including fuel wood, was 698,519 tons, and to this must still be added domestic firewood used in Perth and other towns, and the mining timber used on the Collie coal-fields.

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Correspondence and contributions on forestry matters are invited from members of the League and others interested in forestry and cognate subjects. "Jarrah" has no politics. It knows only forests and forestry, but it will gladly welcome the assistance of patriotic politicians in its propaganda. Questions on matters relating to forestry are invited and will be answered, and suggestions for increasing the usefulness of "Jarrah" will be carefully considered. No responsibility is accepted for opinions expressed or conclusions arrived at by contributors or correspondents.

All communications should be addressed to:

THE EDITOR, "JARRAH,"
WEST AUSTRALIAN CHAMBERS,
ST. GEORGE'S TERRACE,
PERTH.

A Matter of Urgency.

THE time appears to have passed when opinion is divided as to the necessity for effective control and management of the forests of the State. It is recognised all round that some system must be put into operation, without delay, whereby the best may be made of our forest resources, in the interest, not only of the present, but of future generations. The bald but unsatisfying

assertion that something must be done comes trippingly from the tongue, but measures for the purpose of translating desire into accomplishment are not so easy as the average unenlightened citizen is apt to imagine. However clearly the Minister for Forests recognises the position, however wholehearted and earnest his efforts, however zealous and capable the Conservator of Forests may be, and however ready his officers to assist him, really effective action at the present time is impossible. The Department of Woods and Forests is practically helpless, for it has no sufficient machinery at its disposal for carrying into effect adequate schemes for the conservation and improvement of the forests under its care. At the present moment, and ever since its inception, the Department has been endeavouring to carry out its responsible duties without that Legislative enactment which is absolutely necessary for the work. The Department of Woods and Forests in this State conducts its business under certain clauses, tacked on, as a kind of after-thought, to the Lands Act. Under these clauses, regulations have been framed for the supervision of the business of the converter, whether he be sawmiller, sleeper-hewer, or firewood-getter. But when questions of policy such as reserves, regeneration of