the Queensland Arbitration Court had raised the wages of sawmill employees by 8s. per week. Since a reduction in wages was undesirable, the only alternative was an adequate tariff, protective, but not prohibitive, which would not increase the price of timber.—Wanganui Herald.

## The Use of Forests.

In the course of an interview with a Lyttelton Times representative, Mr. Lawson said:—"An authority on forestry has stated that it is not forests, but the use of forests, that we seek to perpetuate. Therefore, to be sound and convincing, educational publicity must include the timber business. So long as the public believes that forestry is good and sawmilling bad, there will be confusion and no real progress. Nowhere does this axiom apply more than in New Zealand, where the most wanton waste has taken place in our forests; and the aim of a forestry policy must be, not to forbid the cutting of timber, but to encourage it upon thrifty lines.

"The Forestry Department has already begun the work of conserving the forests of this country. It is not within the province of the Department, however, to carry out a widespread campaign of education of the public in forestry. That work has been undertaken by the New Zealand Forestry League, which was formed some years ago. The setting up of the Forestry Department may be claimed to be an important result of its activity."

## Some Economic Aspects of Forest Utilisation.

The history of this subject dates back further perhaps than is generally recognised. As would be expected, the fear of a wood famine arose in Europe many years ago, before railroad transportation and navigation had been developed to their modern proportions, making any country independent of local supplies—that is, provided the supplies in other countries last and can be readily secured. This is most strikingly illustrated by the following list of titles, of which I quote only a few, taken from the catalogue of the well-known German Forest Academy Library at Tharandt, and which show that in Germany one hundred years ago, forest conditions must have been somewhat similar to our own, or worse, and remedies, quack and otherwise, were being as freely discussed as with us :--

"Collection of economic information, how to promote wood-growth, introduce better economy in the case of wood, and prevent scarcity of wood sup-

plies by applying building timber more usefully." 1762.

"On Wood Famine." 1799.

"Short instructions for the increase and economic use of wood." 1845.

This problem of economics gradually spread throughout Europe and across to the American continent, where it is now exercising the ingenuity of both Canadian and American foresters.

Professor Fernow, of Toronto, has defined the natural forest resource of any country as an accumulated wood capital lying idle and awaiting the hand of a rational manager to do its duty as a producer of a continuous highest revenue. It is the forester's ideal then to so arrange his capital resources that annually, forever, the same amount of wood product (or an increasing amount since a country must expand), namely, that which grows annually on all his acres may be harvested in the most profitable form. Since this "sustained yield," as it is called, is directly dependent upon the extent of his capital resources, it is evident therefore that the full and economic use of this yield is of the highest importance. A 50 per cent. utilisation requires a much smaller capital than does a 25 per cent. practice, but in many countries, as in New Zealand, an increase in the efficiency of utilisation means all the difference between draining our capital resources, and managing our forests on a sustained yield basis.

The information which we have available regarding New Zealand forest resources stresses that only the immediate inauguration of conservative treatment, of recuperative measures, and of proper economics in the use of wood may be expected to avert the serious discomfort attendant upon a shortage in wood supplies.

While dealing with the general aspects of economical utilisation, certain questions of importation may be discussed with interest. Corresponding with our financial difficulties here in New Zealand, a serious slump has been experienced on the American lumber markets, and a large amount of timber offered in consequence at prices considerably below the cost of production. Unfortunately most of this has been of low grade, and heavy importations, if allowed, will undoubtedly tend to raise the prices of the higher grades of our own timber, besides causing lower utilisation. The sawmiller must, when his lower grades are undersold, raise the price of the upper grades to give him the same average selling price over the whole log as before held.

As yet no mention has been made of the artificial establishment of capital resources—that is reforestation but it is assumed that my remarks apply to forests so constituted as well as to those produced by nature alone.

Forest production differs from all other productive industries in one element—that of time. Agricultural crops are usually ready for harvest the same year they are planted, or at least in a year