## (d) Conclusions.

Arising out of the activities reviewed above it is pertinent to comment generally upon the various effects of the labour lagislation of 1936. One of the first and most important observations is that the ruling prices of most timbers, after providing for all increases, are only at about the 1929-31 level—to which the award rates were raised—whereas all timber products are bearing a much higher labour charge arising out of the fact that the wages are spread over only forty hours as compared with anything from forty-four to fifty-six hours in the earlier period. If the comparison is related to still earlier years of the immediate post-war period, the ruling prices appear even more favourable. For instance, standard butter-boxes commanded as high as 2s.  $7\frac{1}{4}$ d. at that time, compared with only about 2s. for the same type of box last season.

Equal interest attaches to the fact that, in spite of the reduction of hours, no shortage of sawn timber can be attributed thereto, the happy position having developed where demand is substantially in balance with the productive capacity of the industry under the reduced working-hours. It is not improbable that this will prove to be in the long-term interests of the industry. Any material increase in demand above the present level would probably necessitate the bringing of additional units into production, and at an increased level of consumption it is extremely doubtful if the demand could continue for any long period, so that the industry, much scener than otherwise, would have been faced with a reduced operating ratio.

There is also little doubt that the combined effect of exercising control over prices at the same time that production costs have been increasing has proved one of the strongest incentives which the industry has ever experienced in improving the efficiency of every phase of its activities. As referred to in detail in the following paragraphs of this report, substantial progress is being reflected as a result of these developments not merely in the logging and sawmilling sections of the trade, but in the seasoning and merchandising sections.

## 2. Logging and Hauling.

Logging by tractor with and without accessory arch equipment continues to command increasing attention throughout the Dominion. As usual in the development of all new logging methods, the limitations of this equipment were not apparent at the outset, and it is clear from experience by various operators that only in exceptional cases can it be regarded as a complete solution of the logging problem, its general function being supplementary to both ground skidding and (or) overhead logging. Its limitations on soft country are to be noted in particular and, although not as widely destructive of advance forest growth as overhead logging, tractor operation will necessitate considerable supervision to minimize such damage.

The effect of the forty-hour week appears to be of much more serious consequence in logging than in any other phase of the industry, largely because lost time in this section of the work tends to have a far-reaching effect upon the operating efficiency of the sawmill, an adequate reserve of logs on mill-skids against possible interruptions in log-supplies being fundamental to a high operating ratio in the sawmill. In large units, of course, it is possible to meet the situation by employing an extra gang, but in small operations this course is impracticable, and it has therefore been necessary for such units to face a reduced output of sawn timber, with corresponding increases in overhead charges.

The economies made possible in haulage-costs by the use of Diesel power units and of trailers, more especially over long distances, has tended to extend the life of many operations, allowing them to draw upon more distant sources of supply of logs of both indigenous and exotic timbers. This development has also directed attention to the possibilities of road transport in various districts where railways are limited either by lack of traffic or other considerations. As judged by the latest developments in other countries, the full possibilities of road transport in New Zealand cannot be realized under the existing limitations imposed by the various road and transport enactments and regulations. The existing limitations of loads appear to be premised on out-of-date considerations. Modern engineering principles and practices would now indicate that the existing limitations can be raised considerably to allow the use of vehicles which will not only carry much larger payloads, but at the same time will cause considerably less damage to the roads than the class of vehicle which is now in general use. It is hoped that the representations made by this Service along with other interested authorities will have the desired effect of permitting the fullest development of road transport, the indications being that its ton-mile costs may be reduced below railway ton-mile costs.

## 3. Sawmilling.

Developments in sawmilling technique and methods during the period under review call for little comment. Generally speaking, the most promising development is a tendency to improve the standard of mechanical engineering throughout the industry. There is an increased appreciation of the necessity for rigid foundations and improved twin-circular headrigs and carriages. With the increasing production of timber on the West Coast of the South Island it is hoped that the introduction of log frames and the wider use of deal frames will prove feasible. The inherent sawing accuracy of such equipment has much to commend it not only to the industry in the saving of sawdust and planing mill waste, but to the consumer in increased serviceability. It would also appear that wider use of mechanical trimming saws would prove advantageous in some mills where lack of this equipment and reliance upon hand trimming prevents operators from realizing to best advantage upon the product of their logs. In a few mills extra breast bench equipment has been installed to maintain production under forty-hour-week operation, but this, of course, has been feasible only where log-supplies could likewise be stepped up by the employment of extra gangs.