

The Wellington station, when equipped, had the latest quartz control of wave-length, and the only complaint on this head was that the container in which the crystal is placed was not automatically kept at one temperature. The extent to which variations of temperature in its effect on the operation of the control of wave-length, especially in an even-temperated place like Wellington, was so infinitesimal as to indicate to my mind that the Department was hard put to it to find any fault in the plant in this respect. If this temperature-control is deemed desirable it can easily be added, assuming the Department consider the expense will be justified by improved results. The Christchurch plant was not equipped with quartz control when first installed, this method of control being a later development. Notwithstanding the great expense involved (a matter of about £1,000), the company procured this additional equipment and installed it in Christchurch, but were unable to detect any improvement, and therefore did not install such equipment in the later-installed station at Dunedin.

The company's expert, for testing purposes, used the new and old equipment on alternate nights. He says, and I have no doubt it is the case, that the matter of the expense of installing this equipment was not a factor in the decision to omit the equipment from Dunedin. The real deciding factor was that the new equipment did not produce any appreciable results. No one could detect any difference.

The experts for the Department were handicapped by the fact that they had had little experience in the practical work of broadcasting, and their evidence was in the main theoretical and derived from study rather than practice. The expert for the company, Mr. Bingham, in addition to theoretical knowledge, had behind him the valuable practical experience of supervising the company's operations for about five years. This officer is being taken over by the Department, and there is this much to be said for his evidence that I am satisfied it was given with the utmost frankness and sincerity, and, his engagement with the company being terminated, he has no possible interest in being other than fair to the Department, which is now his employer. Indeed, it might be said that as he will be in charge of the plant and responsible for its satisfactory functioning, his interest would be to point rather to its weaknesses than to its strength, seeing that any failures in the future due to weaknesses in the plant would, if he unfairly denies their present existence, be attributed to his personal neglect or inefficiency, if later disclosed. He would indeed be handicapped in serving the Department if, having now designated as efficient a plant which he knows to be inefficient, this same plant in use disclosed weaknesses the existence of which he now denies.

Mr. Bingham did not dispute that all the company's plants were not equipped with all the improvements mentioned by the Department's officers as standard in the newest designed plants, but he said that these improvements were in the nature of refinements, the advantages of which would be perceptible only to experts; but, from the point of view of practical and efficient broadcasting, the listeners, who are the customers of the business, would be quite unable to distinguish the difference.

I translate his opinion as being that, for all practical purposes, the present plants would accordingly to their capacity render to the listeners just as good service as the very latest plants. I think that the Department's officers, in the opinions they have expressed as to the life and usefulness of the plants, have been unduly pessimistic. No experts unconnected with the Department were called on behalf of the Crown. I have no doubt on the evidence that, given reasonable care, these plants will for the next twenty years render as good service as that which they are to-day rendering. Some of the latest improvements can be added if later it should be deemed desirable, but I think that Mr. Bingham's opinion is sound that to do so would be going to unnecessary expense without any perceptible result so far as listeners are concerned. And this want of perception on the part of the listeners will be due not to the fact that the added equipment will not properly function, but to the fact that such addition is a mere refinement producing no result observable by the customers of the Department.

I took it from the opening of counsel for the Crown that the basis of valuation by the Department was the original cost of the plant equipment depreciated by reason of use and "obsolescence." It is obvious that the wear-and-tear on this plant is negligible, because it has so few moving parts. The electric generators run at high speed and their bearings will show some wear, but the bearings of modern-designed generators, as these are, have a very long life, and it is not a difficult or expensive matter to renew them. Such is an ordinary maintenance item, and spare bearings are kept in stock. The position is much similar in the case of commutators on generators. Generators are the only portion of the plant that run at high speed. A small electrically driven pump is also part of the plant, and its life will be indefinite. The real wearing portions of the plant are the valves, which have a life limited to a matter of hours, and are periodically replaced with new ones from stocks carried. The wear due to the oscillation of the needles in recording instruments is also negligible. The real and substantial disability that a transmitting-plant suffers from is its liability to become obsolete, and this is a gradual process. It never wears out if it gets reasonable maintenance, but it will some day become obsolete. The fact that certain portions of the plant have become partially obsolete is the main factor of depreciation. When compared with the latest present-day designed plants, there are certain respects in which this plant is deteriorated in value in the eyes of a buyer, by reason that some portion of it is out of date because displaced in new systems by something better. If the most modern plant were identical in all respects with the company's plant, then the only factor of depreciation would be an allowance for wear or whatever physical deterioration had taken place by reason of use and the destructive effect of time or the elements. The advances in the art of broadcasting have, however, resulted in certain improvements in modern equipments, and because the company's plant is wanting in these refinements, its plant, in the eyes of a buyer is of less value, even if it had never been used. The Crown, as a buyer of such a plant, is entitled to have an allowance off the price to compensate for this element of "out-of-dateness" or partial obsolescence from which the plant suffers.