

CHRISTCHURCH, TUESDAY, 18TH MARCH, 1913.

EDWARD HERRING sworn and examined. (No. 15.)

1. *The Chairman.*] Do you wish to make a statement?—I am a retired farmer, and have been thirty-one years in Canterbury, and I was a member for many years of the Ashburton County Council. I have had much experience in tree-planting, and have met with success. I planted *insignis* principally, also *ponderosa* and *Douglasii*. I planted 9 ft. apart, the outer row being *Pinus insignis*, and then a row of deciduous trees. The *insignis* did very well, but the latter badly. The soil was shingly. The locality was Alford Forest, Ashburton County. The rainfall was 79.6, on an average. I strongly advocated the planting of larch, but the Chairman of the County Council opposed it on the ground that the rainfall was deficient. Finally the plantation was made of larch, and a few months ago I was informed the trees had grown to a height of 40 ft. They are thirty years old.

2. Did planting the trees 9 ft. apart ensure their growing up without putting out side branches?—The branches died away as the trees grew, and I do not think the stems became knotted. The effect of the plantations has been to improve the plains by restraining the floods, and also to improve the stock by providing them with much-needed shelter. The cutting-out of the Alford Forest was a crime, as the trees were no good for timber.

3. *Dr. Cockayne.*] Did you plant the trees on the level or the slopes?—On level land between the two rivers, in strips 1 chain wide.

4. How do you know they were free from knots?—Because the boughs died off.

5. What was the capital value of this land at the time you planted it?—About £3 an acre, and it is now worth £5.

6. *Mr. Murdoch.*] Because of the plantation?—Partly. Without shelter-belts it would be worth 50 per cent. less. There is very great benefit to the sheep on account of the shelter.

7. *Dr. Cockayne.*] Have you seen *Pinus insignis* used for building purposes?—No. A storm did no damage to the *insignis*, but cut the deciduous trees down.

8. Is there any accurate information as to the effect the cutting-down of Alford Forest has had on the streams and river?—No, but many ravines have been made by rain-storms since the bush was cleared.

9. *Mr. Lethbridge.*] Have you calculated the cost of making your plantations?—I did, but my books have been destroyed.

10. Did you raise the trees from seed?—I purchased them from a nursery at a very low price. My wool was the finest a certain buyer bought, and I attribute its quality to the shelter the sheep got from these plantations.

RICHARD D. GRADY sworn and examined. (No. 16.)

1. *Witness*, a member of the firm of A. M. Grady and Co., attended and submitted samples of brushes made from the fibre of the *Cordyline* (cabbage-tree). He stated that the articles were made by hand, but he was unable to disclose the process. They were not on the market, but he wished the Government to take up the process for the benefit of the inmates confined in different public institutions. A dairy brush for the use of farmers could be sold for 2s. 6d., and a clothes-brush for 3s. They were very durable articles. The fibre made excellent cordage, comparing well with manila. Sixty per cent. of the bulk sample of the leaf could be placed on the market. The process of preparing the fibre he would not indicate. For upholsterers it was an excellent material. He had not taken out a patent because he wanted the Government to take it up. The prepared fibre would stand the rain.

JOSEPH CORNISH HELMORE sworn and examined. (No. 17.)

1. *The Chairman.*] I understand you have had some experience in tree-planting?—Yes. Some years ago, at Sherwood, I planted four shelter-plantations half a mile long and about 1½ chains wide, one being entirely of oak. I sowed the acorns *in situ*, scattering them broadcast, and ploughed them in. The result was most successful, a fine oak forest growing up. The age of the trees would now be fifteen years. There is a foot of soil before you come to the shingle. If I did the work over again I would not sow the acorns broadcast, but in rows about 1½ yards apart. I also planted some bark-wattle, but they were cut down every year by frost; eventually they grew into good trees. I had other shelters of pines; but I recommend for the Canterbury Plains the *Cedar deodara* and the *atlantica*.

2. Would you recommend the planting of oaks for commercial purposes?—Certainly.

3. *Mr. Adams.*] What about the difficulty of getting sufficient seeds of the *atlantica*?—I planted the plants.

4. *Dr. Cockayne.*] Have you noticed how in the North Park if it were not for the grazing there would be in a few years an oak forest?—Of course there would be; also sycamores. I found the gums no good at all. They grew into bare poles—wretched-looking things—and took too long to grow. The frosts cut them down, and they want good soil.

5. *Mr. Clarke.*] Did you plant the blue-gum?—Yes, at Sherwood, between Rakaia and Methven. The spruce did not do.

6. *Mr. Adams.*] Did you try larch?—Yes; they did very well; also the prickly acacia, which is valuable for posts.

7. *Mr. Clarke.*] Did the frost interfere with the growth of the gums?—It checked it.