In 1909 I put in 3,000 *Pinus ponderosa* 6 ft. apart, notched method, in grass land. These trees made very little progress for two years, and then came away rapidly. In the same year 1,000 two-year-old Oregon pines and 1,000 larch the same age were planted, also 6 ft. apart, in tussock land, on a southern slope, all of which have done exceptionally well, making from 2 ft. to 3 ft. of growth per year. In the same year I put in 1,200 *Cupressus macrocarpa* in ploughed grass land. There was a large death-rate in these. Those that survived made but fair progress.

All this season's trees were planted 6 ft. apart, notch system, by Millichamp and Sons, of Ashburton; cost of trees with life guaranteed, £5 per 1,000.

I cannot give the cost of fencing, as much of ground planted was only waste corners, some requiring a good deal of fencing, whereas perhaps a larger area required less.

In 1910 the following trees were planted on tussock land: 9,000 larch, 4 ft. apart; 5,000 Oregon pine, 6 ft. apart; all three-year-old trees. The first year these trees only held their own, but made good growth the second year. One thousand one-year-old *Pinus insignis* on the same land did well from the first. These 15,000 trees were also planted by Millichamp and Sons, of Ashburton, by contract, at £3 10s. per 1,000, but with no guarantee. The above-mentioned trees form two separate plantations; in one there are three plots of cocksfoot grass, in all an area of about an acre. The plots were mostly planted with Oregon pine, as they were drier than the rest of the land. Well, hardly a tree lived. The same thing occurred in the cocksfoot plot of the other plantation. I might also mention that F. W. Smith, of Waratah, Albury, planted 8,000 similar trees the same year, and I noticed that hardly a tree grew where there was much grass, which I think is a strong indication that cocksfoot is detrimental to the growth of young trees.

Between the years 1884 and 1890 my father, A. B. Smith, planted 40 acres of mixed trees amidst one another. In 1894 we began to thin out the *insignis*, and have continued doing so up till now, no other fuel having been burned since 1897. I have also had 370,000 superficial feet of *insignis* building-timber cut for own use and settlers on Rosewill Settlement.

Of all the varieties of trees planted by A. B. Smith I notice the rate of growth of each has been as follows: *Pinus insignis*, *Macrocarpa*, Lombardy poplar, Oregon pine, larch, Norway spruce, and Corsican pine.

I have many hundred *Macrocarpa* fencing-posts in the ground. Some I removed after having been in fourteen years, and found the heart timber quite sound.

Yours, &c.,
A. M. Smith.
Per Tasman Smith.

The Chairman, Forestry Commission, Wellington.

No. 5.

Report of Subcommittee on Plantation near Cambridge, Waikato (Messrs. Lethbridge, Murdoch, and Clarke).

Left Hamilton Thursday, 8th May, by motor, at 9.30 a.m., at the invitation of R. Reynolds, Esq., owner of the "Trecarne" Estate, about two miles and a half from Cambridge, on the south bank of the River Waikato.

Weather rainy and cold.

Heartily welcomed by Mr. Reynolds, who explained that his plantation consisted almost entirely of eucalyptus trees, and at once invited us to inspect timbers from this plantation in actual use.

Exhibit No. 1.—Clothes'-line post, about 20 ft. high: Girth at 5 ft. above ground, 22 in.; age of tree when cut down, nineteen years; in use in present position, twenty years. Cut from the middle section of the tree, the bottom portion being used for another purpose. Thickness of sap, about 1¼ in. A hole was dug at the ground-line of this post, and the heart-wood was perfectly sound and solid. Only the sap had decayed below surface of ground.

Exhibit No. 2.—Yard-fence posts and rails: Age of trees when used, thirty years; posts in use, seven years; rails in use, seven years. Very little sap-wood on these posts and rails. The sap had decayed, the heart-wood was perfectly sound and good, and the amount of sap-wood was very small in proportion to the bulk of the several posts and rails. The rails were fixed feather edge uppermost, leaving the sap on the lower edge, and thus allowing the water to run off the sap-wood. Mr. Reynolds explained that his practice is to split both posts and rails to a size a little in excess of the common dimensions, to allow for the decay of sap-wood.

Exhibit No. 3.—A number of large fencing-posts which had lain on the ground unused for ten years. The sap had disappeared and the remaining heart-wood was very hard and dense.

Exhibit No. 4.—The plantation from which the foregoing materials had been procured. Dimensions, approximately: Length of plot, 180 yards; width, 67 yards. This is equal to about 2½ acres. During the past ten years there has been taken from this area 3,000 ordinary fencing-posts, 200 large posts (strainers), 250 fence-rails; all firewood used on the homestead and a large amount which has been given away to workmen and others. There still remain about 350 trees; some of these are of a slow-growing order, such as ironbark and red-gum, but all are of a useful size. Of the larger ones, a specimen measured 82 in. in girth, and was estimated to be 100 ft. in height (rough bark). No. 2 (smooth bark), 120 ft. high, 80 in. girth, thirty-five years old. Regrowth from stump after original tree had been cut down: No. 1—Height, 40 ft.; girth, 37 in.; age of regrowth, ten years. No. 2—Same age; had blown down from parent stump; length on ground, 54 ft.; girth (5 ft. from bottom end), 36 in. No. 3—Three leaders growing from one stump; two of these small main leaders about 60 ft. in height and 34 in. in girth.