

## CROSS TIES PURCHASED IN 1909

The data upon which this report is based were furnished by the steam and electric railways of Canada. The value given for the ties is the cost at the point of purchase.

There were 14,178,241 cross-ties, costing \$5,210,490, purchased in 1909 by the steam and electric roads of Canada. This was an increase of 199,825, 1.4 per cent over the purchases recorded for 1908. Owing to a decrease of one cent in the average price paid per tie \$71,195 more was paid for the ties used in 1908 than for those used in 1909.

The number of ties of each kind of wood purchased in 1908 and 1909 with their total and average cost, and the per cent each species forms of the total is given in Table I.

TABLE I.

THE NUMBER AND COST OF CROSS-TIES OF different species used in 1908 and 1909, with average cost per tie of each species and per cent each species forms of the total.

Kind of Wood.	1908.				1909.			
	Number.	Cost	Av. Cost Each.		Number.	Cost.	Av. Cost Each.	
			\$	cts.			\$	cts.
Cedar .....	5,452,665	2,030,139	37	39	(3) 4,131,380	1,859,121	45	29.1
Jack pine.....	(1) 1,391,700	469,013	34	9.9	3,404,501	1,021,350	30	24.1
Tamarack.....	2,178,942	768,566	35	15.6	(4) 2,811,820	1,096,610	39	19.7
Hemlock.....	2,194,319	810,031	37	15.7	1,850,056	610,512	33	13.1
Spruce.....	1,314,394	452,103	34	9.4	891,573	222,893	25	6.3
Douglas fir.....					653,403	225,258	34	4.6
(2) White pine.....					92,633	27,519	29	0.7
Chestnut.....					84,669	49,809	59	0.6
Oak.....					34,389	21,292	62	0.2
Cypress.....					8,362	3,010	36	(6)
(2) Red pine.....					1,661	316	19	(6)
(2) Southern pine.....					332	223	67	(6)
Unspecified.....	1,446,396	751,833	52	10.4	(5) 213,462	72,577	34	1.6
<b>Total.....</b>	<b>13,978,416</b>	<b>5,281,685</b>	<b>38</b>	<b>100</b>	<b>14,178,241</b>	<b>5,210,490</b>	<b>37</b>	<b>100</b>

(1) Includes all pines used in 1908. (2) Included under jack pine for 1908. (3) Includes 10,500 Western cedar ties, cost \$2,958. (4) Includes 713,261 Western larch ties, cost \$249,296. (5) Includes 18,150 cross-tied ties, cost \$16,335. (6) Less than one-tenth of one per cent.

More woods are reported as used in 1909 than in 1908. This is partly explained by a lack of care in reporting the minor species in 1908 and partly by the growing scarcity of the woods commonly used for cross-ties in Canada and a consequent growth in the use of new or imported species.

Though not as many cedar ties were purchased in 1909 as in 1908 cedar is still the chief species used in Canada. In 1909 it furnished over one-quarter, 28.9 per cent of the ties purchased by Canadian roads. Nearly all the cedar used is eastern cedar (*Thuja occidentalis*); only 10,500 or 0.2 per cent of the cedar ties purchased were western cedar. Western cedar is too soft for satisfactory use as cross-ties.

Jackpine is the second in importance in cross-tie production; in 1909 it supplied about one-quarter or 24.2 per cent of the ties used in Canada. Though the figures for 1908 were only approximate it is evident that there was a much larger proportion of jackpine used for ties in 1909 than in 1908. In 1908 jackpine (including other pines) furnished only one-tenth of the ties used, in 1909 one-quarter of the ties used were jackpine.