PROVINCE OF BRITISH COLUMBIA

REPORT

OF

THE FOREST BRANCH

OF THE

DEPARTMENT OF LANDS

HON. T. D. PATTULLO, Minister

M. A. GRAINGER, Chief Forester

FOR THE YEAR ENDING DECEMBER 31ST

1917

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

VICTORIA, B.C., March, 1918.

To His Honour Sir FRANK STILLMAN BARNARD, K.C.M.G.,

Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

Herewith I beg respectfully to submit the Annual Report of the Forest Branch of my Department for the year 1917.

T. D. PATTULLO,

Minister of Lands.

The Hon. T. D. Pattullo,
Minister of Lands, Victoria, B.C.

SIR,—Owing to heavy enlistment among the staff and the pressure of current work (especially in connection with the speeding-up of aeroplane-spruce production), it has not been possible to furnish the usual literary comment upon the events of the past year. There are submitted herewith statistical tables covering the main activities of the Branch during the calendar year 1917.

M. A. GRAINGER,
Chief Forester.

REPORT OF THE FOREST BRANCH,
DEPARTMENT OF LANDS.

THE TIMBER INDUSTRY.

The final figures for the cut of the Province for 1916, compiled from returns supplied to the Forest Branch by the industry, are as follows:—

	Feet B.M.
Lumber	890,000,000
Shingles, 1,900,000 M.	190,000,000
Poles, 2,500,000 lineal feet	12,500,000
Piles, 2,200,000 lineal feet	11,000,000
Hewn ties, 1,000,000 ties	30,000,000
Fence-posts, 25,500 cords	12,750,000
Mining-props, 31,000 cords	15,500,000
Total	1,161,750,000
Total production reported, 1915	991,780,200
Total production reported, 1916	1,161,750,000

ESTIMATED VALUE OF PRODUCTION.

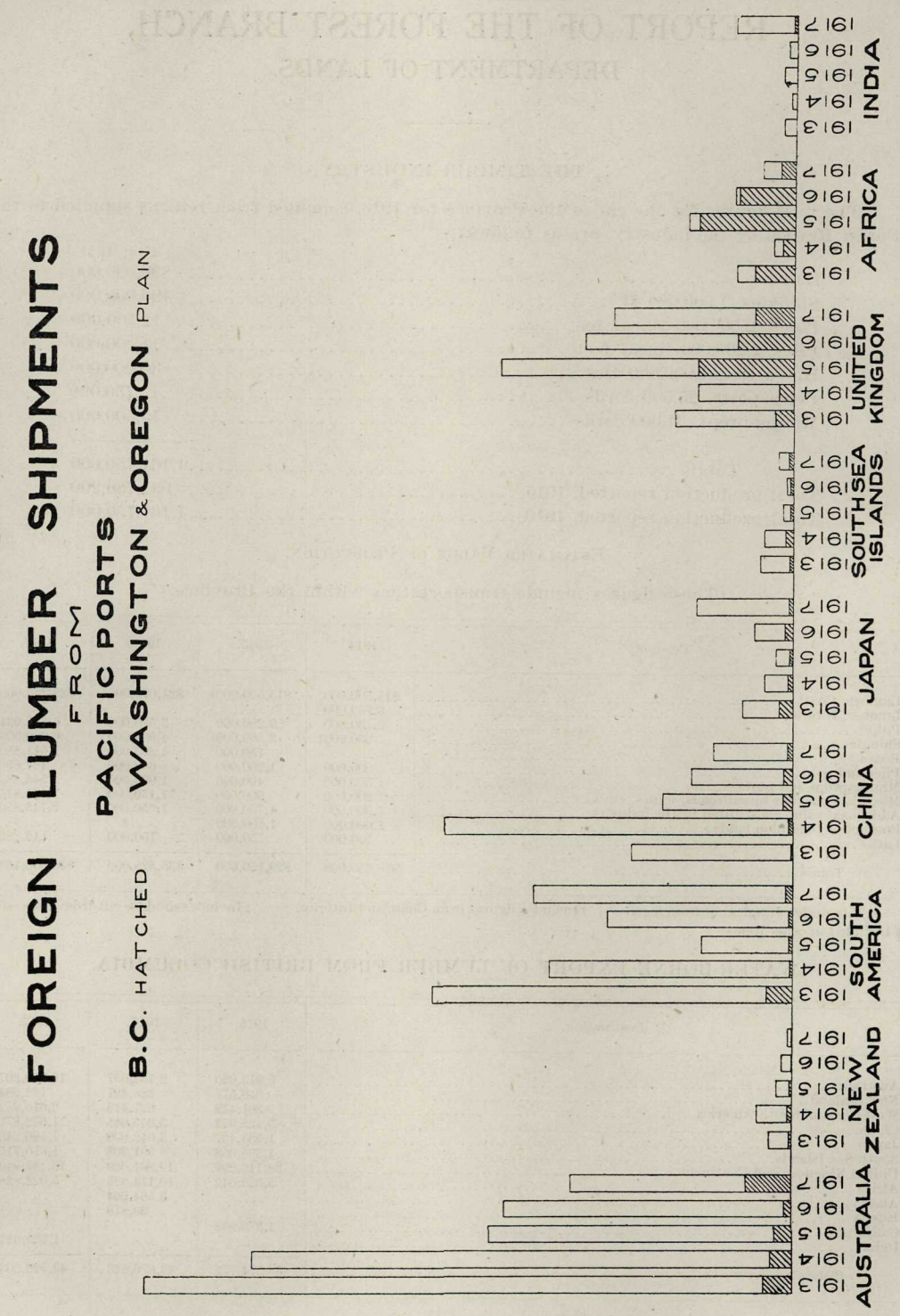
(These figures include transportation within the Province.)

Product.	1914.	1915.	1916.	1917.
Lumber, Coast	$15,500,000*	$15,500,000†	$21,075,000†	$28,225,000†
Lumber, Interior	3,750,000	....	....	....
Pulp	2,730,000	3,200,000	3,520,000	6,835,034
Shingles	650,000‡	3,500,000	4,500,000	6,900,000
Boxes	....	750,000	1,833,000	1,611,880
Piles and poles	900,000	1,200,000	650,000	467,695
Mining-props and posts	300,000	400,000	1,000,000	546,883
Miscellaneous (cut by railroads, mines, etc.)	1,200,000	900,000	1,150,000	1,425,815
Additional value constituted by the industry	1,900,000	1,750,000	1,650,000	2,145,880
Product of Dominion lands	1,600,000	1,800,000	....§	....§
Laths	150,000	150,000	150,000	142,282
Totals	$28,680,000	$29,150,000	$35,528,000	$48,300,469

* Includes shingles cut from logs. † Includes figures from Coast and Interior. ‡ Includes shingles cut from bolts only.
§ Included in other items.

WATER-BORNE EXPORT OF LUMBER FROM BRITISH COLUMBIA.

Destination.	1915.	1916.	1917.
Australia	5,913,020	2,152,657	16,309,307
New Zealand	640,577	286,421	122,984
West Coast of South America	301,449	627,418	2,616,652
China	3,425,953	3,055,045	1,672,871
Japan	1,583,437	3,042,690	1,590,246
South Sea Islands	1,395,058	991,308	1,610,715
United Kingdom and Continent	38,112,299	19,801,629	13,447,946
Africa	5,329,042	10,114,885	5,022,828
Alaska	....	3,564,654	....
Russia	....	39,816	....
California	1,373,938	....	....
India	....	....	1,529,014
Totals	58,074,773	43,676,523	43,922,563

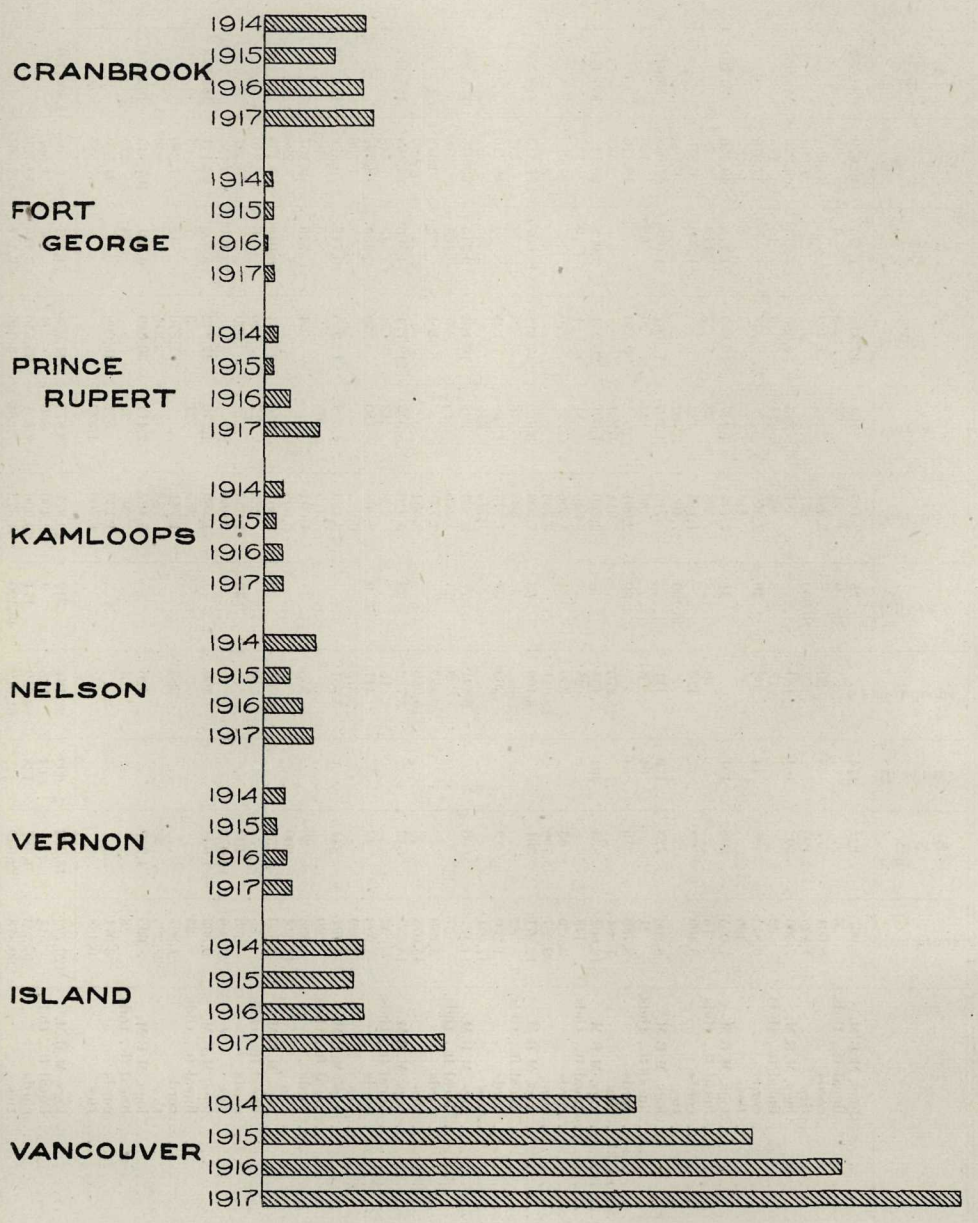

FOREIGN LUMBER SHIPMENTS
FROM
PACIFIC PORTS
B.C. HATCHED
WASHINGTON & OREGON PLAIN
AUSTRALIA
NEW ZEALAND
SOUTH AMERICA
CHINA
JAPAN
SOUTH SEA ISLANDS
UNITED KINGDOM
AFRICA
INDIA
1913
1914
1915
1916
1917

TIMBER SCALED, 1917 (BY MONTHS AND DISTRICTS).

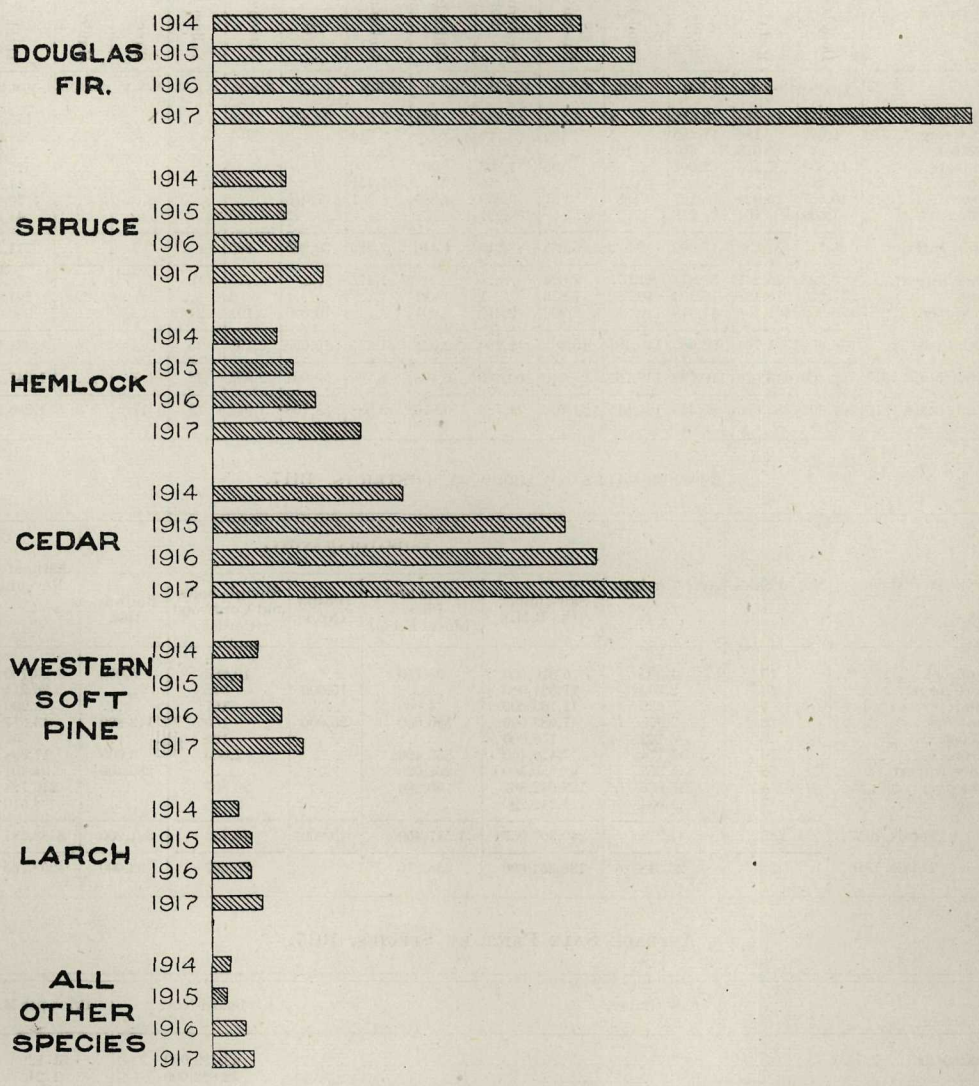
		Cranbrook.	Fort George.	Hazelton.	Kamloops.	Lillooet.	Nelson.	Vernon.	Island.	Prince Rupert.	Vancouver.	Total M.B.M.	Total Lineal Feet, Thds.	Total Cords.	Total Ties.
January	logs, M.B.M.	8,967	102	174	....	75	2,139	731	17,319	1,275	49,670	80,452	....	....	....
"	lineal ft., thds.	5	....	....	....	9	71	27	32	6	35	....	185	....	....
"	cords	5,604	677	28	80	....	3,384	....	1,280	....	24,981	....	....	36,034	....
"	ties	1,835	2,490	....	....	10,000	231	....	....	....	1,004	....	....	....	15,560
February	logs, M.B.M.	7,366	302	164	189	....	581	843	4,386	273	33,923	48,027	....	....	....
"	lineal ft., thds.	22	....	....	17	....	86	11	3	15	115	....	269	....	....
"	cords	6,842	88	14	208	40	2,536	....	....	....	17,316	....	....	27,044	....
"	ties	486	....	....	....	....	446	....	....	....	....	....	....	....	932
March	logs, M.B.M.	7,055	398	191	....	41	2,149	1,447	13,259	1,178	49,476	75,194	....	....	....
"	lineal ft., thds.	15	....	....	10	....	88	28	7	110	75	....	333	....	....
"	cords	5,409	29	32	120	....	1,183	422	....	1,390	6,876	....	....	15,461	....
"	ties	....	....	....	....	36,190	17,466	3,762	....	....	6,700	....	....	....	64,118
April	logs, M.B.M.	8,206	773	170	411	....	716	4,209	12,501	1,003	61,658	89,647	....	....	....
"	lineal ft., thds.	21	....	64	3	....	36	22	29	62	130	....	367	....	....
"	cords	8,789	16	54	....	30	2,001	....	9,550	....	19,416	....	....	39,856	....
"	ties	1,884	....	....	25,270	....	911	1,784	....	....	2,539	....	....	....	32,388
May	logs, M.B.M.	12,662	838	494	494	8	2,850	7,601	20,951	3,925	90,142	139,471	....	....	....
"	lineal ft., thds.	148	....	....	25	....	46	11	81	70	192	....	573	....	....
"	cords	3,529	43	....	250	24	1,596	....	276	....	14,026	....	....	19,744	....
"	ties	99,287	5,796	....	18,041	....	3,733	....	....	....	....	....	....	....	126,857
June	logs, M.B.M.	12,371	391	....	3,169	63	2,903	3,923	17,818	10,607	77,113	128,358	....	....	....
"	lineal ft., thds.	82	....	....	....	....	508	48	22	39	122	....	821	....	....
"	cords	1,296	12	....	369	38	1,273	1,858	194	83	15,716	....	....	20,839	....
"	ties	47,051	....	....	....	....	1,775	345	....	....	....	....	....	....	49,171
July	logs, M.B.M.	14,127	606	....	5,491	77	8,834	297	16,168	9,515	66,345	121,460	....	....	....
"	lineal ft., thds.	37	....	....	9	....	278	15	37	164	218	....	758	....	....
"	cords	5,389	42	....	453	....	4,731	....	161	428	36,373	....	....	47,577	....
"	ties	45,075	....	....	15,926	....	8,564	....	....	....	801,966	....	....	....	871,531
August	logs, M.B.M.	15,399	512	....	3,752	23	5,913	8,545	19,771	14,806	84,433	153,154	....	....	....
"	lineal ft., thds.	52	....	....	16	....	228	13	54	17	148	....	528	....	....
"	cords	1,923	42	....	441	9	2,268	150	239	455	18,327	....	....	23,854	....
"	ties	3,099	....	....	2,375	....	6,333	....	....	....	1,796	....	....	....	13,603
September	logs, M.B.M.	6,721	844	....	3,261	....	3,189	4,339	12,936	10,717	79,372	121,379	....	....	....
"	lineal ft., thds.	20	....	....	....	....	315	68	....	75	95	....	573	....	....
"	cords	808	38	....	355	....	1,094	....	54	745	9,167	....	....	12,261	....
"	ties	43,644	600	....	....	....	5,005	....	....	....	290	....	....	....	49,539
October	logs, M.B.M.	9,850	3,252	....	4,705	25	3,801	3,050	28,034	6,048	88,435	147,200	....	....	....
"	lineal ft., thds.	55	....	....	40	....	282	17	26	6	249	....	675	....	....
"	cords	896	400	....	....	30	1,059	....	900	....	28,397	....	....	31,682	....
"	ties	20,806	14,073	....	....	....	7,860	....	....	77,157	9,756	....	....	....	129,652
November	logs, M.B.M.	9,303	1,038	....	266	....	4,389	1,276	47,842	5,593	62,121	131,828	....	....	....
"	lineal ft., thds.	26	....	....	....	....	255	21	3	7	63	....	375	....	....
"	cords	1,867	....	....	383	....	1,741	....	7,876	15	7,280	....	....	19,162	....
"	ties	27,223	....	....	....	....	788	....	3,346	....	930	....	....	....	32,287
December	logs, M.B.M.	8,695	4,227	....	426		6,407	2,414	30,689	6,781	107,915	167,554	....	....	....
"	lineal ft., thds.	28	....	....	3	....	297	55	....	24	225	....	632	....	....
"	cords	3,971	....	....	....	....	1,130	371	15,000	....	21,860	....	....	42,332	....
"	ties	9,488	....	....	....	....	1,760	1,393	....	....	47,583	....	....	....	60,224
Total	logs, M.B.M.	120,722	13,283	699	22,164	312	43,871	38,675	241,674	71,721	850,603	1,403,724	....	....	....
"	lineal ft., thds.	511	....	64	123	9	2,490	336	294	595	1,667	....	6,089	....	....
"	cords	46,323	1,387	128	2,659	171	23,996	2,801	35,530	3,116	219,735	....	....	335,846	....
"	ties	299,878	22,959	....	61,612	46,190	54,872	7,284	3,346	77,157	872,564	....	....	....	1,445,862

Total, 1,647,275 M B.M.

TIMBER SCALED BY DISTRICTS



SPECIES CUT



NOTE. Figures for 1914 shew sawlogs only
Poles, Piles, Cordwood and Ties omitted

SPECIES CUT, 1917.

Forest District.	Douglas Fir.	Red Cedar.	Spruce.	Hemlock.	Balsam Fir.	Western Soft Pine.	White Pine.	Jack-pine.	Larch.	Cottonwood.	Yellow Cedar.	Birch.	Maple.	Total.
	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.	M.B.M.
Cranbrook	52,611	12,989	3,633	4	5,328	42,838	124	5,068	32,838	386	....	....	....	155,819
Fort George	1,719	186	11,255	5	460	....	....	714	....	354	....	2	....	14,695
Hazelton	....	615	367	101	....	....	....	....	....	....	....	....	....	1,083
Kamloops	13,835	7,163	2,006	85	96	1,893	901	50	....	....	....	....	....	26,029
Lillooet	414	....	....	....	....	14	....	1,452	....	....	....	5	....	1,885
Nelson	10,527	29,925	127	9,138	51	9,939	3,289	1	7,045	....	....	....	....	70,042
Vernon	7,609	404	218	....	....	33,531	132	....	22	60	....	....	....	41,976
Totals, Interior	86,715	51,282	17,606	9,333	5,935	88,215	4,446	7,285	39,905	800	....	7	....	311,529
Prince Rupert	3,395	15,261	38,811	11,075	8,626	....	....	1,475	....	....	12	....	....	78,655
Island	217,226	15,428	10,104	16,550	1,276	1	421	....	....	2	....	....	....	261,008
Vancouver	456,033	361,105	44,048	112,803	5,903	2,279	1,601	....	10,096	2,191	24	....	....	996,083
Total, Coast	676,654	391,794	92,963	140,428	15,805	2,280	2,022	1,475	10,096	2,193	36	....	....	1,335,746
Grand totals, 1917	763,369	443,076	110,569	149,761	21,740	90,495	6,468	8,760	50,001	2,993	36	7	....	1,647,275
Grand totals, 1916	564,691	385,096	85,329	101,315	21,406	71,783	6,816	3,088	38,706	1,944	75	11	3	1,280,263

TIMBER-SALES AWARDED BY DISTRICTS, 1917.

Forest District.	No. of Sales.	Acres in Area.	Estimated Quantity.					Estimated Revenue.
			Saw-timber (Ft. B.M.).	Poles and Piles. (Lineal Feet).	(Posts) (No.)	Shingle-bolts and Cordwood (Cords).	Railway-ties.	
Cranbrook	17	4,502	6,910,000	25,750	....	19,665	5,000	$ 23,765 42
Fort George	20	2,362	17,321,000	....	15,000	842	....	36,214 93
Island	4	225	1,103,000	4,000	....	167	....	2,206 12
Kamloops	22	7,956	17,083,000	596,000	25,000	150	142,800	43,317 41
Lillooet	3	142	175,000	....	....	125	....	352 50
Nelson	10	1,174	7,479,400	533,400	....	2,000	3,000	17,698 30
Prince Rupert	58	11,853	62,350,500	268,020	....	....	230,400	94,491 46
Vancouver	114	15,666	123,642,867	90,280	....	20,807	....	246,724 39
Vernon	7	1,034	4,242,290	....	....	....	....	8,510 97
Totals, 1917	255	44,914	240,307,057	1,517,450	40,000	43,756	381,200	$483,281 50
Totals, 1916	133	23,318	136,354,000	435,810	....	26,667	92,000	$259,765 12

AVERAGE SALE PRICE BY SPECIES, 1917.

Saw-timber.	Board-feet.	Price per M.
Douglas fir	43,139,000	$1 12
Cedar	72,822,000	1 24
Spruce	59,071,000	96
Tamarack	2,336,000	1 61
Hemlock	34,013,000	48
Balsam fir	21,790,000	54
White pine	1,203,000	1 24
Western soft pine	2,654,000	1 51
Other species	3,279,057	1 88
Totals	240,307,057	$0 99

TIMBER CUT FROM TIMBER-SALES DURING 1917.

Forest District.	Feet B.M.	Lineal Feet.	Cords.	Ties.
Cranbrook	2,503,517	60,525	4,018	....
Fort George	4,607,635	....	52	....
Island	....	4,000	....	....
Kamloops	2,896,332	39,965	....	18,645
Lillooet	....	....	70	....
Nelson	1,177,645	230,385	402	4,092
Prince Rupert	10,380,849	150,305	....	12,200
Vancouver	75,205,642	41,365	10,320	....
Vernon	2,307,212	18,884	....	....
Totals, 1917	99,078,832	545,429	14,862	34,937
Totals, 1916	63,055,102	225,799	8,425	....

SAW AND SHINGLE MILLS OF THE PROVINCE, 1917.

Forest District.	SAWMILLS.		SHINGLE-MILLS.		SAWMILLS.		SHINGLE-MILLS.		SAWMILLS.		SHINGLE-MILLS.
	No.	Operating, with Estimated Daily Capacity.	No.	Operating, with Estimated Daily Capacity.	No.	Shut down, with Estimated Daily Capacity.	No.	Shut down, with Estimated Daily Capacity.	No.	Under Construction, with Estimated Daily Capacity.	Under Construction, with Estimated Daily Capacity.
Cranbrook	25	1,136,000	..	....	9	360,000	1	50,000	..	....	....
Fort George	15	315,000	1	50,000	3	20,000	..	....	5	145,000	....
Island	40	1,518,000	6	580,000	1	50,000	..	....	1	100,000	....
Kamloops	7	305,000	..	....	9	575,000	1	120,000	..	....	....
Lillooet	9	38,000	..	....	8	43,000	..	....	..	....	....
Nelson	13	396,000	9	755,000	16	448,000	..	....	..	....	....
Prince Rupert	19	445,000	2	208,000	9	155,000	..	....	1	125,000	....
Vancouver	71	3,728,000	52	8,662,000	15	755,000	13	650,000	..	....	....
Vernon	13	413,000	..	....	12	173,000	..	....	..	....	....
Totals	212	8,294,000	70	10,255,000	82	2,579,000	15	820,000	7	370,000	....

LOGGING INSPECTION.

Forest District.	Timber-sales.	Hand-loggers' Licences.	Leases, Licences, Crown Grants, and Pre-emptions.	Total Operations.	No. of Inspections.
Cranbrook	16	....	45	61	117
Fort George	18	....	8	26	24
Island	2	2	60	64	42
Kamloops and Lillooet	27	....	35	62	51
Nelson	14	....	126	140	194
Prince Rupert	30	92	25	147	240
Vancouver	110	47	265	422	891
Vernon	19	....	42	61	52
Totals	236	141	606	983	1,611

TRESPASS, 1917.

Forest District.	No. of Cases.	Area cut over (Acres).	Quantity Cut.				No. of Resulting Seizures.	Amount realized.
			Feet B.M.	Lineal Feet.	Cords.	Ties.		
Cranbrook	2	8	53,000	....	16	....	1	$ 122 00
Fort George	2	30	40,000	22,450	....	....	..	....
Island	4	100	356,518	4,438	....	....	..	393 56
Kamloops	..	....	....	....	...	....	..	....
Lillooet	..	....	....	....	....	....	..	....
Nelson	4	19.5	....	5,329	79	907	..	81 64
Prince Rupert	1	6	40,048	....	....	....	..	180 00
Vancouver	18	*	2,941,789	....	72	....	5	225 95
Vernon	5	185	1,091,733	4,460	50	....	..	1,251 28
Totals, 1917	36	348.5	4,523,088	36,677	217	907	6	$2,254 43
Totals, 1916	72	1,046	4,472,106	69,873	1,397	....	16	$3,821 32

*Not stated.

LAND CLASSIFICATION.

STATUS OF AREAS EXAMINED, 1917.

Forest District.	Lots.		Expired Timber Licences.		Pre-emption Records.		Application to Purchase.		Miscellaneous.	
	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.
Cranbrook	12	2,030	..	....	..	....	..	....	..	....
Fort George	361	141,611	..	....	20	3,342	..	....	27	22,783
Island	64	25,927	..	....	7	787	1	320	17	2,095
Kamloops	27	4,644	..	....	8	1,243	..	....	1	160
Lillooet	46	7,542	..	....	5	799	..	....	5	800
Nelson	13	1,706	..	....	3	400	2	240	1	160
Prince Rupert and Hazelton	167	55,431	..	....	14	1,845	8	2,317	9	2,808
Vancouver	67	16,618	3	1,623	20	1,849	2	480	2	200
Vernon	26	4,780	..	....	4	504	..	....	1	320
Totals	783	240,283	3	1,623	81	10,769	13	3,357	63	29,326

CLASSIFICATION OF AREAS EXAMINED, 1917.

Forest District.	Total Area.	Agricultural Land.	Area recommended for Reserve.	Estimate of Timber on Total Area.
				M.B.M.
Cranbrook	2,030	930	....	....
Fort George	167,736	118,133	5,120	292,750
Island	29,129	5,566	831	299,054
Kamloops	6,047	2,861	273	4,848
Lillooet	9,141	4,309	....	6,857
Nelson	2,506	726	313	5,141
Prince Rupert and Hazelton	62,401	37,341	1,208	137,160
Vancouver	20,770	4,292	9,804	154,954
Vernon	5,604	1,601	....	8,105
Totals	305,364	175,759	17,549	908,869

PRODUCTON OF PULP PAPER, 1917.

	1917. Tons.	1916. Tons.
Sulphite pulp	43,644	14,389
Sulphate pulp	2,863	...
Ground wood-pulp	65,620	...
Paper—		
Newsprint	75,833	65,229
Wrapper	3,170	

TIMBER EXPORTS.

EXPORT OF LOGS, 1917.

	Grade No. 1.	Grade No. 2.	Grade No. 3.	Ungraded.	Total.
Cedar	4,863,595	22,945,161	10,352,846	....	38,161,602
Fir	863,364	2,390,328	1,384,701	....	4,638,393
Spruce	250,875	977,409	264,678	....	1,492,962
Pine	....	....	645	24,695	25,340
(Larch) Balsam	....	....	....	1,117,245	1,117,245
Hemlock	....	....	....	5,729,499	5,729,499
Cypress	....	....	....	11,427	11,427
Totals, 1917	5,977,834	26,312,898	12,002,870	6,882,866	51,176,468
Totals, 1916	4,809,557	31,058,451	14,283,873	2,032,504	52,184,385

EXPORT OF POLES, PILES, PROPS, TIES, AND WOOD, 1917.

Forest District.	Quantity exported.	Approximate Value F.O.B.	WHERE MARKETED.	
			United States.	Canada.
Cranbrook—				
Posts	Cords, 20,731	103,655	....	20,731
Props	Cords, 17,932	107,592	....	17,932
Piling	Lin. ft., 342,915	24,004	....	342,915
Poles	Lin. ft., 149,886	9,173	10,700	139,186
Hewn ties	Pieces, 299,035	89,711	....	299,035
Mine-ties	Cords, 54	432	10	44
Wood	Cords, 4,438	22,190	....	4,438
Fort George—				
Fence-posts	Cords, 269	1,654	....	269
Excelsior bolts	Cords, 127	170	....	127
Island—				
Piling	Lin. ft., 154,830	13,712	154,830	....
Kamloops—				
Posts	Cords, 117	606	....	117
Poles	Lin. ft., 50,645	2,815	....	50,645
Nelson—				
Posts	Cords, 6,250	31,250	2,773	3,477
Piling	Lin. ft., 117,551	8,830	112,551	5,000
Poles	Lin. ft., 1,571,065	79,596	997,916	573,149
Wood	Cords, 20	100	20	....
Vancouver—				
Piling	Lin. ft., 641,735	48,027	641,735	....
Poles	Lin. ft., 569,585	39,841	569,585	....
Shingle-bolts	Cords, 321	3,210	321	....
Vernon—				
Hewn ties	Pieces, 4,481	1,616	4,481	....
Total	....	588,184	....	....

FOREST RECORDS.

FOREST REVENUE.

The total revenue from the forest collected in 1917 was $2,338,333.52, being an increase over 1916 of $332,398.76. The improvement in the prosperity of the lumber industry noted in the closing months of 1916 has continued throughout the past year. This is especially apparent in the amount received from logging operations (royalty and stumpage). Owing to the amelioration of conditions, the Department has been successful in reducing by 46 per cent. the arrears of royalty which were piled up during the depression which existed in 1914 and 1915. The following table gives the revenue in detail for the past five years:—

	12 Months to Dec., 1917.	12 Months to Dec., 1916.	12 Months to Dec., 1915.	12 Months to Dec., 1914.	12 Months to Dec., 1913.
Timber-licence rentals	$1,074,129 07	$1,138,879 22	$1,140,656 53	$1,555,980 28	$2,112,876 18
Royalty and tax	785,543 42	456,863 29	351,310 13	391,118 36	482,707 05
Trespass penalties	3,207 32	893 39	3,520 54	7,170 95	9,016 95
Lease rentals	76,426 74	77,040 59	120,132 35	88,792 08	119,291 44
Scaling fees	62,381 50	32,590 20	27,893 16	30,472 32	23,978 99
Scaling expenses	6,055 74	3,158 71	2,564 71	1,803 82	1,759 41
Seizure expenses	507 11	1,364 84	85 71	270 90	....
Licence penalties	11,928 01	28,524 00	16,692 69	25,335 00	24,291 00
Timber stumpage	113,498 13	68,779 87	67,250 42	36,545 33	18,719 92
Transfer fees	4,070 00	3,670 00	4,400 00	7,085 00	10,385 00
Hand-loggers' licence fees	9,700 00	7,100 00	5,550 00	5,200 00	5,025 00
Interest	68 04	100 09	1,117 81	115 13	17,208 84
Timber-mark fees	....	....	137 00	508 50	924 50
Timber-sales rentals	9,457 72	5,235 35	3,830 89	3,477 87	2,597 95
Timber-sales cruising	2,687 03	1,148 74	2,183 42	1,550 83	1,140 40
Timber-sales advertising	1,183 35	391 89	532 71	534 05	691 40
Scalers' examination fees	295 00	225 00	60 00	425 00	585 00
Copies of documents	561 53	401 80	128 00	569 57	....
Exchange	470 61	45 22	17 33	61 96	119 95
General miscellaneous	....	....	....	....	1,469 73
	$2,162,170 32	$1,826,412 20	$1,748,063 40	$2,157,018 95	$2,832,788 71
Taxation from Crown-grant timber lands	176,163 20	179,528 56	174,495 00	185,661 00	166,540 00
Total revenue from forest sources	$2,338,333 52	$2,005,940 76	$1,922,558 40	$2,342,679 95	$2,999,328 71

Revenue from Logging Operations, 1917.

Forest District.	Royalty and Tax.	Scaling Fees.	Trespass Penalties.	Seizure Expenses.	Scaling Expenses.	Stumpage.	Totals.
Vancouver	$374,094 87	$37,843 49	$ 542 81	$ 935 00	$4,405 65	$ 90,678 54	$508,500 36
Island	44,464 19	8,379 58	91 60	....	657 30	78 46	53,671 13
Cranbrook	80,885 69	71 44	102 00	....	....	6,879 43	87,938 56
Prince Rupert	42,052 44	3,544 95	135 00	....	....	9,882 79	55,615 18
Nelson	29,674 27	....	29 25	48 01	....	3,435 55	33,187 08
Vernon	18,833 60	....	873 30	193 75	32 00	4,118 37	24,051 02
Fort George	10,523 44	90	224 50	27 21	....	7,836 42	18,612 47
Hazelton	843 52	....	....	....	....	2 52	846 04
Lillooet	117 84	....	73 50	....	5 00	46 70	243 04
Kamloops	4,179 64	27 91	....	....	....	5,051 92	9,259 47
Totals	$605,669 50	$49,868 27	$2,071 96	$1,203 97	$5,099 95	$128,010 70	$791,924 35
Totals, 1916 operations	$500,574 76	$36,340 56	$1,713 85	$ 966 86	$3,422 24	$ 63,030 56	$606,048 83
Totals, 1915 operations	$401,383 84	$30,836 03	$2,313 15	$1,796 23	$3,210 62	$ 80,042 30	$519,582 17

FOREST EXPENDITURE.

The sums voted for forest-work for the fiscal year 1917-18 were as follows:—

Vote No. 12—Salaries	$133,920
„ 294—Trade Extension	10,000
„ 295—Miscellaneous	85,000
Total	$228,920

In addition to this total, $140,000 was voted as the estimated amount of the Government's contribution to the Forest Protection Fund.

General Administrative Expenditure.

(For Nine Months, April to December 31st, inclusive.)

Forest District.	Vote No. 12: Salaries.	Vote No. 295: Miscellaneous.	Total.
Headquarters	$34,235 59	$7,703 19	$41,938 78
Cranbrook	4,343 25	2,830 03	7,173 28
Fort George	3,657 08	2,123 26	5,780 34
Island	4,549 55	2,178 60	6,728 15
Kamloops	3,210 25	2,925 69	6,135 94
Lillooet	975 00	543 78	1,518 78
Nelson	3,290 01	1,139 40	4,429 41
Prince Rupert	4,541 19	5,966 59	10,507 78
Vancouver	26,244 25	16,123 81	42,368 06
Vernon	2,806 59	1,312 83	4,119 42
Totals	$87,852 76	$42,847 18	$130,699 94

FOREST PROTECTION FUND.

The statement appended will show the standing as at December 31st, 1917, of the above funds. At the close of the fiscal year 1916-17, owing to the economies affected in the operation of the fund during that year and 1915-16, it was found possible to wipe off the $143,658.73 overcontributed in 1914 by the Government to cover the extremely bad fire season that year. There was a balance to the credit of the fund at April 1st, 1917, of $4,986.76, and on the nine months' working a deficit of $23,700.41 is shown. It must be recognized, however, that this deficit will be more than counterbalanced by the amounts collected from timber-owners during January, February, and March, 1918 (to which the Government will add a like sum), so that the fund will be in credit at the close of the year's working.

Forest Protection Fund Statement.

Fiscal year 1912-13—				
Collections		$105,259 42		
Government's contribution		105,259 42	$210,518 84	
Expenditure		$207,624 99		
Less refunds		3,454 93	204,170 06	
Balance to credit of fund				$ 6,348 78
Fiscal year 1913-14—				
Brought forward from 1912-13		$ 6,348 78		
Collections		165,018 33		
Government's contribution		165,018 33	$336,385 44	
Expenditure		$342,361 64		
Less refunds		21,549 31	320,812 33	
Balance to credit of fund				15,573 11
Fiscal year 1914-15—				
Brought forward from 1913-14		$ 15,573 11		
Collections		122,341 27		
Government's contribution	$122,341 27			
Loan by Government, $100,000; over-contributed on estimates, $43,658.73	143,658 73	266,000 00	$403,914 38	
Expenditure		$403,140 93		
Less refunds		16,785 89	386,355 04	
Balance to credit of fund				17,559 34

Fiscal year 1915-16—			
Brought forward from 1914-15	$ 17,559 34		
Collections	114,784 55		
Government's contribution	114,784 55	$247,128 44	
Expenditure	$185,538 46		
Less refunds	1,394 30	184,144 16	
Balance to credit of fund			$62,984 28
Fiscal year 1916-17—			
Brought forward from 1915-16	$ 62,984 28		
Collections, fiscal year 1916-17	120,392 40		
Government's contribution	120,392 40	303,769 08	
Expenditure, fiscal year 1916-17	$156,570 93		
Less refunds	1,447 34		
	$155,123 59		
Amount overcontributed by Government, 1914-15	143,658 73	298,782 32	
Balance to credit of fund			4,986 76
Balance to credit of fund at April 1st, 1917	$ 4,986 76		
Collections, April to December, 1917 (nine months)	83,712 75		
Government's contribution, April to December, 1917 (nine months)	83,712 75	172,412 26	
Expenditure (nine months)	$205,151 40		
Less refunds (nine months)	9,038 73	196,112 67	
Deficit in nine months' working			23,700 41

Forest Protection Expenditure.

	Fiscal Years.				
	1913-14.	1914-15.	1915-16.	1916-17.	1917-18 (9 mos., April 1st to Dec. 31st, 1917).
Patrol	$217,093	$228,352	$157,432	$144,251 28	$110,465 01
Improvements	104,000	31,385	5,151	3,747 86	5,097 85
Fires	9,600	143,461	19,449	7,124 45	89,588 54
Totals	$330,693	$403,198	$182,032	$155,123 59	$205,151 40

Expenditure by Districts for Nine Months ending December 31st, 1917.

Forest District.	Patrol.	Improvements.	Fires.	Total.
Headquarters	$ 8,792 92	....	....	$ 8,792 92
Cranbrook	12,612 48	$1,560 93	$16,014 41	30,187 82
Fort George	14,441 25	....	364 06	14,805 31
Island	9,555 70	....	6,808 52	16,364 22
Kamloops	8,906 05	457 25	847 56	10,210 86
Lillooet	3,834 92	1 75	194 85	4,031 52
Nelson	12,631 93	899 31	54,014 08	67,545 32
Prince Rupert	11,289 97	....	206 75	11,496 72
Vancouver	20,652 75	1,098 58	3,644 55	25,395 88
Vernon	7,747 04	1,080 03	7,493 76	16,320 83
Total	$110,465 01	$5,097 85	$89,588 54	$205,151 40

Monthly Patrol Expenses, 1917.

District.	April.	May.	June.	July.	August.	September.	Oct.-Dec.
Headquarters *	$8,254 61	$ 301 29	$ 46 09	$ 104 66	$ 20 23	$ 45 15	$ 20 89
Cranbrook	38 00	1,215 26	1,611 61	2,692 21	3,768 04	2,283 16	1,004 20
Fort George	561 23	1,857 58	2,718 47	2,633 77	3,297 43	2,687 00	685 77
Island	58 75	934 05	1,448 06	2,062 45	3,129 07	1,382 35	540 97
Kamloops	6 75	1,348 76	1,510 42	1,840 85	2,294 24	1,544 98	360 05
Lillooet	100 70	359 40	713 34	665 20	852 34	853 52	290 42
Nelson	8 25	1,116 23	1,810 90	3,382 11	4,373 18	1,533 28	362 98
Prince Rupert	120 75	2,152 53	2,141 76	2,673 00	2,721 07	980 87	499 99
Vancouver	22 88	3,287 43	3,217 66	4,806 09	6,028 82	2,273 27	1,006 60
Vernon	....	792 07	1,064 45	1,848 74	2,626 19	1,284 47	131 12
Totals	$9,171 92	$13,409 60	$16,282 76	$22,709 08	$29,110 61	$14,868 05	$4,902 99

* Out of this amount, the sum of $7,325 was paid for thirteen Ford runabouts with boxes attached, distributed as follows: Island District, 3 cars; Vancouver District, 1 car; Kamloops District, 1 car; Vernon District, 2 cars; Nelson District, 1 car; Cranbrook District, 3 cars; Fort George District, 1 car; Lillooet District, 1 car.

Co-operation with British War Office.

The Department during the past year has continued to act as fiscal agents for the British War Office for their lumber purchases in this Province. The following table shows the number and value of ammunition-boxes shipped:—

Order No.	No. of Cars shipped.	No. of Boxes shipped.	No. in Storage.	Value.
23	118	500,000	....	$182,500
27-29	48	231,150	354,900	246,347
Totals	166	731,150	354,900	$428,847

In addition to the ammunition-boxes, 1,530,098 feet B.M. of lumber has been shipped, the value of these shipments being $66,716.87.

Timber Licences.

The total number of timber licences on the books at December 31st, 1917, was 13,963. Below is a statement showing the number of paid and unpaid licences, and their distribution, as between Coast and Interior:—

	Coast.	Interior.	Total.
Number of licences at December 31st, 1917	8,218	5,745	13,963
Number fully paid	4,700	2,651	7,351
Number paid under section 4 of the 1917 "Relief Act" (July to December)	138	102	240
Number in arrears (reinstatable)	3,380 (41%)	2,992 (52%)	6,372 (46%)

The revenue collected through the operation of section 4 of the 1917 "Relief Act" amounted to $28,520 for the six months July to December. The section named provided that all annual renewal fees falling due after July 1st, 1917, must be paid within one year of the annual renewal dates, in order to prevent absolute expiry of the licences. It is expected that as the year of grace draws to its close payments under this section will increase. An incidental effect of the section will be to disclose the number of dead licences which hitherto, owing to the operation of the "Relief Act," have had to be considered as reinstatable.

CROWN-GRANT TIMBER LANDS.

	Area of Private Timber Lands.	Average Value per Acre.
1911	824,814	$8 72
1912	874,715	8 60
1913	922,948	9 02
1914	960,464	9 66
1915	913,245	9 55
1916	922,206	9 73
1917	916,726	9 61

The extent and value of timber land in the various assessment districts are shown by the following table:—

Forest District.	Acreage, 1917.	Increase or Decrease in Acreage over 1916.	Average Value per Acre.	Change in Value per Acre since 1916.
Victoria	14,637	-2,305	$13 51	+0.21
Cowichan	87,079	+ 2	14 87	-0.01
Alberni	44,368	No change	18 31	No change
Nanaimo	78,244	No change	12 83	No change
Comox	216,630	-1,265	13 64	-0.35
Rossland	24,478	No change	3 73	-0.30
Kettle River	5,094	No change	3 00	No change
Slocan	44,423	No change	5 29	No change
Vancouver	6,660	- 768	14 66	-1.07
Nelson	176,294	- 802	3 77	-0.08
Vernon	6,422	No change	4 99	No change
Golden	77,786	- 124	3 86	-0.01
Revelstoke	48,599	+ 160	11 52	-0.03
Fort Steele	86,282	- 378	6 39	-0.02
Totals	916,726	-5,480	$9 61	+0.12

TIMBER-MARKS.

During the past year a total of 639 new marks were issued and 298 transfers, extensions, and changes in old marks were made, which indicates a very general increase of operations, particularly with regard to hand-logging, 365 hand-logging licences being issued for 1917, as against 290 issued for 1916.

These new marks, transfers, etc., have been included in the timber-mark list, a book mentioned in the last annual report as being issued monthly, giving a full classified list of all marks authorized for use in logging operations within the Province where logs are floated.

Owing to the rapid increase of marks, the time and detail required to revise this list, it is now issued quarterly, and interim monthly returns of marks issued are furnished to the forest officials and mill operators, etc., who subscribe for this reference list.

The following table gives the marks issued, classified by the status of land covered:—

	1916.	1917.
On old Crown grants	45	56
On Crown grants, 1887-1906	47	41
On Crown grants, 1906-1914	29	35
On timber under the "Royalty Act, 1914"	115	133
On timber leases	69	15
On sixteen-year timber licences	1	2
On timber-sales	100	176
On Dominion lands	51	22
On hand-loggers' licences	106	159
Totals	563	639

Correspondence.

	1917.	Daily Average.	
Incoming mail	28,300	92	Decrease over 1916, 17 per cent.
Outgoing mail	42,500	138	Decrease over 1916, 33 per cent.

FOREST BRANCH ORGANIZATION.

Distribution of Total Force, British Columbia Forest Branch, 1917.

Forest District.	Permanent.										Temporary.							
	Chief Forester and Foresters.	Assistant Foresters.	District Foresters.	Accountants and Inspectors.	Office Clerks and Draughtsmen.	Forest Assistants.	Scalers.	Cruisers and Compass-men.	Rangers.	Launch Crews.	Assistant Rangers.	Patrolmen.	Packers and Canoe-men.	Lookout-men.	Railway Patrolmen.	Rangers' Assistants, Compass-men, etc.	Others.	Grand Total.
Cranbrook	....	....	1	....	1	....	1	....	3	....	5	13	....	2	....	....	....	....
Fort George	....	....	1	....	1	....	....	....	4	....	13	7	....	....	....	....	....	....
Island	....	....	1	....	1	....	2	....	3	....	6	12	....	....	....	1	1	....
Kamloops	....	....	1	....	1	....	1	....	2	....	6	10	....	....	....	....	....	....
Lillooet	....	....	1	....	....	....	....	....	....	....	4	2	....	....	....	....	....	....
Nelson	....	....	1	....	1	....	....	....	3	....	7	19	....	....	....	....	....	....
Prince Rupert	....	....	1	....	1	....	2	....	4	5	8	1	....	....	....	....	....	....
Vancouver	....	....	1	....	10	....	17	....	8	7	9	17	....	....	....	....	2	....
Vernon	....	....	1	....	1	....	....	....	2	....	4	11	....	....	....	....	....	....
Victoria Headquarters	1	3	....	2	31	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	1	3	9	2	48	....	23	....	29	12	62	92	....	2	....	1	3	287
Totals, 1916	3	3	9	....	50	1	21	2	31	16	163	23	1	5	2	2	4	336
Totals, 1915	4	3	11	....	50	12	17	10	36	17	177	25	7	1	2	1	5	378

Area of Administrative and Protective Units, 1917.

Forest District.	Total Land Area.	No. of Ranger Districts.	Average Area, Ranger Districts.	No. of Assistant Ranger Districts.	Average Area, Assistant Ranger Districts.	Maximum No. Assistant Rangers and Patrolmen during Season.	Average Minimum Area, Assistant Rangers and Patrolmen Districts.
	Acres.		Acres.		Acres.		Acres.
Cranbrook	7,560,000	3	2,520,000	5	1,512,000	18	420,000
Fort George	39,375,000	4	9,843,750	13	3,028,846	20	1,968,750
Island	6,390,000	3	2,130,000	6	1,065,000	18	355,000
Kamloops	9,470,000	2	4,735,000	6	1,578,333	16	591,875
Lillooet	12,670,000	..	....	4	3,167,500	6	2,111,666
Nelson	7,950,000	3	2,650,000	7	1,135,714	26	305,769
Hazelton and Prince Rupert	44,980,000	4	11,245,000	8	5,622,500	9	4,997,777
Vancouver	15,770,000	8	1,971,250	9	1,752,222	26	606,538
Vernon	5,835,000	2	2,967,500	4	1,458,750	15	389,000
Totals	150,000,000	29	4,390,689*	62	2,419,354	154	974,026
Totals, 1916	150,000,000	31	4,838,700	163	920,245	186	806,450
Totals, 1915	150,000,000	36	4,166,600	177	847,450	202	742,550

*Lillooet land area is not included in this, as the District Forester undertook the Ranger's work.

FOREST PROTECTION.

CO-OPERATION, 1917.

Forest District.	Name of Firm.	No. of Patrolmen.	Region patrolled.
Cranbrook	Canadian Pacific Railway Co.	2	Yahk Tie Reserve.
"	" "	1	Yahk to Moyie.
"	" "	1	Kimberley.
"	" "	2	Bull River Tie Reserve.
"	Hale & Hall	1	Canal Flats.
"	East Kootenay Lumber Co.	1	Logging Railway.
"	Ross-Saskatoon Lumber Co.	1	"
"	Crow's Nest Pass Lumber Co.	1	"
"	Staples Lumber Co.	1	"
Island	City of Victoria	5	Sooke pipe-line.
"	Cowichan Lake Lumber Co.	3	Cowichan Lake-Duncan.
"	V. H. May	1	Campbell Lake.
"	British American Timber Co.	2	Campbell Lake and River.
Kamloops	E. V. Dunlevie	1	Blue River to Thompson Crossing.
Nelson	Benton Pole & Lumber Co.	1	Benton Siding.
"	A. B. Buckworth	2	Erie.
"	Trader's National Bank	1	"
"	Kootenay Cedar Co.	1	Lardeau.
"	J. A. Nowell	1	Cutler's Creek.
"	Royal Lumber Co.	1	Duncan River.
"	Arrow Lakes Lumber Co.	1	Arrowhead.
"	Forest Mills	1	Nelson.
"	Island Mill Lumber Co.	1	Arrow Park.
"	Mankin Lumber & Pole Co.	1	Hall.
"	Trail Lumber Co.	1	Paulson.
Vancouver	Merrill & Ring	1	Powell Lake and Theodosia River.
"	North Pacific Lumber Co.	1	Campbell Lake.
Vernon	Central Okanagan Lands, Ltd.	1	Rutland.
"	South Kelowna Land Co.	1	Hydraulic Creek.
"	White Valley Irrigation Co.	1	Aberdeen Lake.
"	Belgo-Canadian Fruitlands Co.	1	Eight-mile Creek.
"	Municipality of Penticton	1	Penticton Creek.
"	Kelowna Land & Orchard Co., Ltd.	1	Mission Creek.
"	Canyon Creek Irrigation Co., Ltd.	1	Canyon Creek.
"	Kelowna Irrigation Co.	1	Mission Creek.
"	Black Mountain Water Co., Ltd.	2	Eight-mile Creek and Mission.

Damage caused by Forest Fires, 1917.

Table A.—Area burned over and Damage to Forests.

Forest District.	Merchantable Timber destroyed or damaged.				Valuable Second Growth.		Cut-over Land, Unmerchantable Timber, Old Burn, not restocking.			Grazing Range.		Grand Totals.					
	Area.	Quantity Total Loss.	Quantity salvable.	Damage.	Area.	Estimated Damage.	Area.	Quantity killed.	Damage to Standing Timber.	Area.	Damage.	Area.		Quantity.		Damage.	
	Acres.	M. Ft. B.M.	M. Ft. B.M.		Acres.		Acres.	M. Ft. B.M.		Acres.		Acres.	Per Cent.	M. Ft. B.M.	Per Cent.		Per Cent.
Cranbrook	17,536.00	166,460	15,000	$79,842 50	6,650.00	$10,540 00	53,256.60	60.0	$ 95 00	1,937.00	$ 800 00	79,379.60	33.47	181,520	67.95	$91,277 50	70.70
Fort George	64.00	287	..	342 75	0.50	....	1,723.10	..	....	117.40	....	1,905.00	0.80	287	0.11	342 75	0.26
Prince Rupert and Hazelton	106.75	710	100	360 40	457.50	187 00	2,267.00	110.0	25 00	148.75	30 00	2,980.00	1.26	920	0.34	602 40	0.47
Island	415.00	2,700	1,208	2,454 50	166.50	76 00	10,206.50	..	....	825.00	....	11,613.00	4.85	3,908	1.46	2,530 50	1.96
Kamloops	602.50	1,985	50	1,685 00	1,651.50	....	6,694.50	..	....	4,330.00	....	13,288.50	5.60	2,035	0.76	1,685 00	1.30
Lillooet	1,387.50	1,936	..	1,098 20	2,206.60	606 25	3,132.60	10.0	....	2,638.00	248 95	9,364.70	3.95	1,946	0.73	1,953 40	1.51
Nelson	4,592.20	40,026	29,255	14,618 60	3,138.00	2,964 50	48,896.85	0.5	100 00	6,748.15	2,522 25	63,375.20	26.72	69,281.5	25.93	20,205 35	15.65
Vancouver	1,056.25	2,540	1,270	1,800 00	969.00	3,310 00	5,428.50	..	....	12.00	255 00	7,465.75	3.15	3,810	1.42	5,365 00	4.15
Vernon	2,265.50	2,229	1,250	1,017 00	986.00	59 10	27,784.50	..	....	16,881.25	4,086 85	47,917.25	20.20	3,479	1.30	5,162 95	4.00
Totals	28,025.70	218,873	48,133	$103,218 95	16,225.60	$17,742 85	159,390.15	180.5	$220 00	33,647.55	$7,943 05	237,289.00	100.00	267,186.5	100.00	$129,124 85	100.00
Per cent. of grand totals	11.80	81.92	18.02	79.95	6.80	13.74	67.20	0 06	0.16	14.20	6.15	100.00	..	100.00	..	100.00	..
Totals, 1916	15,304.00	47,653	2,757	$47,333 00	11,277.74	$219 00	111,045.36	0.5	Not given.	23,661.37	$1,361 00	161,288.47	..	50,415	..	$48,913 00	..
Per cent	9.0	94.5	5.5	96.7	7.0	0.5	69.0	..		15.0	2.8	100.0	..	100.0	..	100.0	..
Totals, 1915	30,310.00	144,220	43,030	$88,043 00	13,317.00	$20,504 00	148,246.00	659.0	Not given.	52,316.00	$326 00	244,189.00	..	187,909	..	$108,873 00	..
Per cent	12.4	76.7	22.9	80.9	5.5	18.8	60.7	0.4		21.4	0.3	100.0	..	100.0	..	100.0	..

Table B.—Damage to Property other than Forests.

Forest District.	Forest Products in Process of Manufacture.	Buildings.	Railway and Logging Equipment.	Miscellaneuos.	Totals.	Per Cent.
Cranbrook	$28,250 00	$2,100 00	....	$240 00	$30,590 00	18.84
Fort George	....	25 00	....	....	25 00	0.01
Hazelton and Prince Rupert	105 00	115 00	....	50 00	270 00	0.17
Island	30,541 00	700 00	$10,000 00	240 00	41,481 00	25.56
Kamloops	3,516 00	600 00	2,360 00	....	6,476 00	3.99
Lillooet	25 00	....	....	18 75	43 75	0.02
Nelson	8,375 75	25,103 00	2,350 00	7,810 00	43,638 75	26.88
Vancouver	7,909 00	29,920 00	....	.. .	37,829 00	23.31
Vernon	440 00	1,500 00	....	40 00	1,980 00	1.22
Totals	$79,161 75	60,063 00	$14,710 00	$8,398 75	$162,333 50	100.00
Per cent	48.77	37.00	9.06	5.17	100.0	
Totals, 1916	$2,980 00	$18,396 00	$3,808 00	$1,778 00	$26,962 00	....
Per cent	11.00	68.2	14.2	6.6	100.00	....
Totals, 1915	$10,546 00	$29,740 00	$12,825 00	$4,663 00	$57,774 00	....
Per cent	18.2	51.5	22.2	8.1	100.0	....

Table C.—A Comparison of the Damage caused by Forest Fires in Last Seven Years.

	1917.	1916.	1915.	1914.	1913.	1912.	1911.
Total number of fires	986	864	1,031	1,832	578	347	331
Area burned over (acres)	237,289	161,288	244,189	355,124	10,270	160,000	Not given.
Standing timber destroyed or damaged (M.B.M.)	267,186	50,415	187,250	102,804	3,845	200,000	3,570
Amount salvable (M.B.M.)	48,133	2,757	43,030	Not given.	Not given.	Not given.	Not given.
Damage to forests	$129,124	$48,913	$108,873	$72,057	$ 4,387	$200,000	Not given.
Damage to other forms of property	162,333	26,962	57,774	364,475	13,967	113,273	47,000
Total damage	291,457	75,875	166,647	436,532	18,354	313,273	....

COST OF FIRE-FIGHTING.

Fires, 1917, classified by Place of Origin and Cost of Fire-fighting.

Forest District.	Total Fires.	Originated on Vacant Crown Lands and Lands paying Tax (F.P.)	Originated on Alienated Land not paying Tax (F.P.)	Extinguished without Cost.			Cost Money to extinguish.			Total Cost of Fire-fighting.		Average Cost per Fire.
	No.	No.	No.	No.	Per Cent. of Total Fires in District.	Per Cent. of Total Fires in Province.	No.	Per Cent. of Total Fires in District.	Per Cent. of Total Fires in Province.	Dollars.	Per Cent. of Total spent fighting Fires in Province.	Dollars.
Cranbrook	319	31	288	251	79	25	68	21	7	15,785	17	232
Fort George	45	27	18	27	60	3	18	40	2	166	.....	9
Hazelton and Prince Rupert	45	2	43	39	62	4	6	16	1	304	1	50
Island	83	27	56	45	54	4	38	46	4	7,282	8	191
Kamloops	41	18	23	11	27	1	30	73	3	801	2	26
Lillooet	39	25	14	28	72	3	11	28	1	208	1	19
Nelson	189	35	154	101	53	10	88	47	9	52,906	59	601
Vancouver	117	58	59	57	69	6	60	51	6	2,830	3	47
Vernon	108	34	74	66	61	7	42	39	4	7,961	9	189
Totals	986	257	729	625	.....	63	361	.....	37	88,243	100	244
Per cent.	100.0	26.1	73.9	63.4	.....	.....	36.6	.....	.....	.....	.....	.....
Totals, 1916	864	209	655	693	.....	80	171	.....	20	.....	.....	.....
Per cent	100.0	24.2	75.8	80.2	.....	.....	19.8	.....	.....	5,585	100	32
Totals, 1915	1,031	341	690	714	.....	69.3	317	.....	30.7	.....	.....	.....
Per cent	100.0	33.1	66.9	69.3	.....	.....	30.7	.....	.....	19,449	100	61

Fires, 1917, classified by Size and Damage.

Forest District.	Total Fires.		Under ¼ Acre.			¼ Acre to 10 Acres.			Over 10 Acres in Extent.			Damage.		
	No.	Per Cent.	No.	Per Cent. of Total Fires in District.	Per Cent. of Total Fires in this Class.	No.	Per Cent. of Total Fires in District.	Per Cent. of Total Fires in this Class.	No.	Per Cent. of Total Fires in District.	Per Cent. of Total Fires in this Class.	Under $100.	Between $100 and $1,000.	Over $1,000.
Cranbrook	319	32.3	173	54.2	65.0	77	24.2	19.5	69	21.6	21.2	10	10	13
Fort George	45	4.6	7	15.5	2.6	30	66.7	7.6	8	17.8	2.5	4	2	.....
Hazelton and Prince Rupert	45	4.6	.....	.....	.....	28	62.2	7.1	17	37.8	5.2	5	1	.....
Island	83	8.4	17	20.5	6.4	27	32.5	6.9	39	47.0	12.0	9	13	2
Kamloops	41	4.2	1	2.4	0.4	20	48.8	5.1	20	48.8	6.1	.....	.....	1
Lillooet	39	3.9	7	17.9	2.6	11	28.2	2.8	21	53.9	6.5	20	4	.....
Nelson	189	19.2	42	22.2	15.8	88	46.6	22.3	59	31.2	18.2	45	18	12
Vancouver	117	11.9	14	12.0	5.3	69	59.0	17.4	34	29.0	10.5	13	6	9
Vernon	108	10.9	5	4.6	1.9	45	41.7	11.3	58	53.7	17.8	41	13	2
Totals	986	100.0	266	.....	100.0	395	.....	100.0	325	.....	100.0	147	67	39
Per cent.	.....	.....	27.0	.....	....	40.1	.....	.....	32.9	.....	.....	.....	.....	.....
Totals, 1916	864	.....	230	.....	.....	336	.....	.....	298	.....	.....	127	50	15
Per cent	.....	.....	26.6	.....	.....	38.9	.....	.....	34.5	.....	.....	.....	.....	.....
Totals, 1915	1,031	.....	231	.....	.....	371	.....	.....	429	.....	.....	288	117	24
Per cent	.....	.....	22.4	.....	.....	36.0	.....	.....	41.6	.....	.....	.....	.....	.....

CAUSES OF FOREST FIRES, 1917.

Table A.—Number and Causes of Fires, 1917.

Forest District.	(1.) Campers and Travellers.	(2.) Unknown Causes.	(3.) Operation of Railways.	(4.) Lightning.	(5.) Brush-burning.	(6.) Railway-construction.	(7.) Miscellaneous (known).	(8.) Industrial Operation.	(9.) Incendiary.	(10.) Public Road-construction.	Totals. No.	Totals. Per Cent.
Cranbrook	23	35	215	13	2	....	29	....	2	....	319	32.3
Fort George	16	13	2	2	2	....	2	....	5	3	45	4.6
Hazelton and Prince Rupert	28	10	3	....	2	....	....	....	....	2	45	4.6
Island	35	17	6	....	3	....	2	19	1	....	83	8.4
Kamloops	1	12	16	4	7	....	....	....	1	....	41	4.2
Lillooet	18	12	1	....	2	....	5	....	1	....	39	4.0
Nelson	10	56	73	21	15	....	9	4	1	....	189	19.2
Vancouver	32	31	5	2	5	....	6	36	....	....	117	11.8
Vernon	46	28	14	6	10	....	2	....	2	....	108	10.9
Totals	209	214	335	48	48	....	55	59	13	5	986	100.0
Per cent	21.2	21.8	33.9	4.9	4.9	....	5.6	5.9	1.3	0.5	100.0	....

Table B.—Number and Causes of Forest Fires for Last Seven Years.

Causes.	1917.	1916.	1915.	1914.	1913.	1912.	1911.
Campers and travellers	209	268	305	487	195	51	126
Unknown	214	148	160	367	104	149	126
Operation of railways (common carriers only)	335	121	82	361	110	34	31
Lightning	48	67	100	169	34	23	1
Brush-burning (to clear farm land, etc.)	48	148	267	164	26	47	14
Railway-construction	....	....	17	98	62	11	8
Miscellaneous	55	19	24	83	7	6	3
Industrial operations (logging, etc.)	59	59	28	50	24	17	14
Incendiary	13	22	28	42	7	....	....
Public road-construction	5	12	20	11	9	9	8
Totals	986	864	1,031	1,832	578	347	331

BURNING PERMITS, 1917.

Forest District.	Clearing Agricultural Land.				Clearing Logging-slash.				Clearing Railway Right-of-way.				Clearing Public Roads.				Grand Totals.			
	Permits issued.	Area burned over.	Fires escaped Control.	Fires set without Permits.	Permits issued.	Area burned over.	Fires escaped Control.	Fires set without Permits.	Permits issued.	Area burned over.	Fires escaped Control.	Fires set without Permits.	Permits issued.	Area burned over.	Fires escaped Control.	Fires set without Permits.	Permits issued.	Area burned over.	Fires escaped Control.	Fires set without Permits.
	No.	Acres.	No.	No.	No.	Acres.	No.	No.	No.	Acres.	No.	No.	No.	Acres.	No.	No.	No.	Acres.	No.	No.
Cranbrook	340	1,807	1	2	2	100	..	..	2	50	..	..	..	..	..	..	344	1,957	1	2
Fort George	921	4,205	1	42	37	203	..	..	1	2	..	..	1	35	..	..	960	4,445	1	42
Hazelton and Prince Rupert	382	3,572	2	..	2	28	1	1	..	..	..	..	5	43	1	..	389	3,643	4	1
Island	376	3,487	..	3	10	543	..	..	3	25	..	..	5	21	..	..	394	4,076	..	3
Kamloops	284	1,128	4	2	5	15	..	1	7	10	..	..	..	..	..	..	296	1,153	4	3
Lillooet	125	1,103	..	2	..	..	..	..	..	..	..	..	4	23	..	..	129	1,126	..	2
Nelson	1,065	638	3	10	6	102	..	..	8	..	..	..	2	96	..	..	1,081	836	3	10
Vancouver	264	471	..	1	14	1,052	1	2	1	1	..	..	6	9	..	..	285	1,533	1	3
Vernon	202	2,600	1	9	34	325	..	..	1	10	..	..	..	..	..	..	237	2,935	1	9
Totals	3,959	19,011	12	71	110	2,368	2	4	23	98	..	..	23	227	1	..	4,115	21,704	15	75
Per cent	96.2	87.6	80.0	94.7	2.7	10.9	13.3	5.3	0.55	0.5	..	..	0.55	1.0	6.7	.	100.0	100.0	100.0	100.0
Totals, 1916	6,901	20,344	51	61	150	2,332	..	1	93	2,157	..	1	112	161*	..	2	7,256	24,833	51	65
Per cent	95.1	81.9	100.0	94.0	2.1	9.4	..	1.5	1.3	8.7	..	1.5	1.5	..	..	30	100.0	100.0	100.0	100.0

* Miles.

Prosecution for Fire Trespass, 1917.

Forest District.	Information laid.	Character of Offences.				Result of Cases.				
		Burning without Permit.	Incendiary.	Leaving Camp-fires burning.	Refusing to fight Fire.	Served Sentence in Gaol.	Fines.		Suspended Sentence.	Cases dismissed.
							No.	Amount.		
Cranbrook	3	2	....	....	1	....	2	$ 35 00	....	1
Fort George	1	1	....	....	....	....	1	25 00	....	....
Hazelton and Prince Rupert	....	....	....	....	....	....	....	....	....	....
Island	....	....	....	....	....	....	....	....	....	....
Kamloops	....	....	....	....	....	....	....	....	....	....
Lillooet	....	....	....	....	....	....	....	....	....	....
Nelson	2	....	2	....	....	....	2	107 65	....	....
Vancouver	1	1	....	....	....	....	1	150 00	....	....
Vernon	5	3	2	....	....	....	3	150 00	....	2
Totals	12	7	4	....	1	....	9	$477 65	....	3
Totals, 1916	4	4	....	....	....	1	....	....	3	....

PERMANENT IMPROVEMENTS.

Summary of New Improvements, 1917.

Kind of Work.	No.	Miles.	Cost.	Cost per Mile or Unit.
Wagon-road	1	1	$ 131 13	$131 13
Horse-trails	13	113½	2,273 26	20 12
Bridges	1	30 feet	15 00	15 00
Launch and boats	2	....	260 00	130 00
Shelters for motor-car	1	....	43 80	43 80
Total	....	....	$2,723 19	....

Maintenance-work done on Permanent Improvements, 1917.

Kind of Work.	No.	Miles.	Cost.	Cost per Mile.
Horse-trails	44	496	$1,051 55	$ 2 12
Telephone-lines	4	132	2,529 44	19 16
Total	....	....	$3,580 99	....

List of Improvements in each District.

Kamloops Forest District.

New work— Miles.

- Tete Jaune Cache Wagon-road 1
- Kiwa Creek Trail 4
- Seymour-Humanilt Trail 8
- Depot Camp-Momick Trail 8
- Little Clearwater Bridge, 30 feet.
- Clearwater Lake Trail 2½

Lillooet Forest District.

New work—

- New boat, 16 feet by 4 feet 6 inches.

Vernon Forest District.

New work—

	Miles.
Park Mountain Trail	18
Canyon Creek-Sawmill Creek Trail	7
Voigt Valley-Brookmere Trail	6
Three Brothers-Cambie River Trail	23
Granite-Nine-mile Trail	11
Migessula-Siwash Creek Trail	6
Sugar Lake Trail	6
Squaw Valley-Moore Lake Trail	6

Mabel Lake Launch, 22 feet.

Shelter for Car, 12 x 16 feet.

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