tained.

## TRAFFIC RETURNS

Canadian Pacific Railway.				
Year to date	1916	1917	1918	Increase
Mar. 31 \$	27,154,000	\$30,465,000	\$32,154,000	\$1,689,000
Week ending	1916	1917	1918	Increase
Apr. 7	\$2,482,,000	\$2,830,000	\$2,984,000	\$154,000
14	2,577,000	2,833,000	2,935,000	102,000
21	2,343,000	2,708,000	3,016,000	308,000
30	3,166,000	3,665,000	4,072,000	407,000
Grand Trunk Railway.				
Year to date	1916	1917	1918	Decrease
Mar. 31 \$	12,799,374	\$13,532,631	\$12,884,022	\$648,609
Week ending	1916	1917	1918	Increase
	\$1,155,486	\$1,215,768	\$1,359,291	\$143,523
14	1,024,505	1,103,119	1,414,538	311,419
21	1,059,661	1,085,031	1,358,972	273,941
30	1,445,853	1,481,293	1,986,134	504,841
Canadian Northern Railway.				
Year to date	1916	1917	1918	Increase
	\$6,783,000	\$8,464,400	\$8,842,600	\$378,200
Week ending		1917	1918	Increase
Apr. 7	\$677,000	\$736,200	*******	******
14	668,900	881,600	932,600	51,000
21	634,300	765,600	929,500	163,900
30	844,100	932,100	1,182,400	250,300

## SURVEY OF PULPWOOD RESOURCES.

(By C. D. Howe, Ph. D.)

There are at least three definite lines of enquiry to be pursued in connection with the problem of our pulpwood supply. In the first place, there should be a definite stock-taking of the commercial material now available. We must know what we have before we can make any sensible plans for the future. Not every acre, nor even extensive areas, should be actually cruised, for the results would not justify the expense; but sufficient cruising should be dore and enough data gathered to permit of reliable estimates being made. Such work has already been done by the Commission of Conservation in British Columbia, and it is under contemplation for Ontario.

Estimates of the available commercial pulp-wood supplies in the Province of Quebec have been made, but, as yet, here has been only a partial methodical stock-taking, despite the fact that Quebec is the most important pulpwood area in Canada, supplying over one-half of the pulpwood produced in the Dominion. Nearly half of the pulp mills in Canada are situated in Quebec. With her long southward-flowing rivers, extending into the very heart of the pulpwood regions, with her water and rail connections, Quebec is much nearer the ultimate market for most purpwood products than any other province with an equal supply of material. Indeed, this very accessibility increases the danger of early exhaustion of her supply. Logically and economically, Quebec should be the first to institute a thorough-going investigation of her present supply of pulpwood.

Once we have taken the initial step of ascertaining how much pulpwood we have in Eastern Canada, its distribution and its accessibility, we can, with a known rate of consumption, make a reasonable prediction as to the duration of the supply. Since, however, we are dealing with living wood substance, which has the wonderful power of regenerating itself each year, we must take another factor into consideration, namely, the rate of growth or, in other words, the annual accumulation of new wood fibre in our spruce and balsam forests. This brings us to our second line

of enquiry, viz., a detailed study of growth and production, involving the making of stem analyses on carefully selected areas. To be sure, this is little less than drudgery; it is tedious, heartbreaking work, especially if done in 'fly' time; but it is only this kind of investigation that can furnish data by which a ratio between the annual accumulation of wood fibre and the amount annually removed by the pulpwood operations, can be established. This ratio is essential to a reasonably accurate prediction of the duration of the pulpwood supply.

The deplacement of the pulpwood removed by any agency is brought about in the first instance by the growth of the small non-commercial trees already on the area. These, in turn, become of commercial size, they are eventually cut, and their place must be supplied by new individuals. spruce and balsam must establish themselves in the forest if the supply of pulpwood is to be continued beyond one generation of trees. Therefore, the third line of enquiry to follow in order to solve our problem, is the rate of reproduction of the pulpwood species on the cut-over pulpwood lands. If the logging operations, or the fires which often follow them, change conditions to such an extent that spruce and balsam cannot maintain themselves in their former commercial quantities, the supply of pulpwood on those areas cannot be main-

## FIRE PREVENTION IS "THINKING FIRE" BEFORE HAND.

Fire prevention is "thinking fire" before hand. An ounce of fire prevention before a fire starts is far more effective than thousands of tons of water afterwards, Mr. W. B. Northrop, special investigator, New York, in the Evening Post, says: "Everybody knows that a wooden house will burn down and that one of brick will not. But we are constantly having fires in brick buildings, and even in buildings in which the principles of fire-proofing are supposed to be carried out. Still even when you have what is supposed to be a fire proof building, it is impossible to have the contents of these buildings entirely fire-proof.

"The consequence is that people are being burned in buildings which are actually fire-proof.

Very simple things lead to great fires. The danger spots in the average home, are the chimney, stove, and the various heating and lighting appliances. To these add carelessness in the use of matches. Cigars, cigarettes, storage of waste material, and removal of ashes, and you have accounted for about 75 per cent. of the fires occurring in homes.

"In the matter of lighting we have as causes for fire defective wiring due to poor workmanship or deterioration of equipment.

"All over the country today there is a movement towards fire prevention. By adopting proper building methods, and observing common-sense rules to avoid fires, there is no doubt that our terrible fire waste can be greatly reduced, as railway accidents can be prevented, by installing proper signal appliances, by examination and repair of the road-bed, by having the best equipment in the line of rolling stock. So can fire be prevented by forethought."