## Section 4.—Forest Depletion and Increment

**Depletion.**—The average annual rate of depletion of reserves of merchantable timber during the ten years 1930-39 was estimated to be 3,623 million cu. ft. Of this total, 70 p.c. was used and 30 p.c. lost through forest fires and other destructive agencies.

The volume used was 2,519 million cu. ft., of which 226 million cu. ft., or 9 p.c. was exported in the forms in which it was taken from the forests. Of the 2,293 million cu. ft. finally consumed in Canada or subjected to further manufacture before being exported, 37 p.c. was used for fuel, 32 p.c. in sawmills, 25 p.c. in pulp and paper mills and 6 p.c. in the form of miscellaneous products, such as hewn ties, poles, posts, etc. It is believed that nearly 80 p.c. of the volume used was taken from softwood species.

The average annual loss from fires during the ten-year period is placed at 404 million cu. ft. of merchantable timber, and average losses caused by insects and tree diseases are estimated at 700 million cu. ft.

The accelerated demand for many forest products caused by the War has undoubtedly increased the rate of consumption of merchantable timber, but complete statistics are not yet available. Very heavy inroads have been made into reserves of high-grade logs of certain species; in particular, Sitka spruce from the west coast and yellow birch from the eastern forests, both of which woods are specially suitable for the manufacture of aircraft, may be mentioned. There has also been an abnormal demand for the higher grades of species used in ordinary construction, such as Douglas fir. The over-riding necessities of war must be met, even though it means the serious depletion of reserves of some of our best timbers. On the other hand, there is no shortage of sawlogs of the medium and lower grades, and the requisite supplies of pulpwood are forthcoming and will continue to be available provided that the necessary labour can be found.

Forest Fires.—The Dominion Forest Service compiles statistics of losses by forest fires from information supplied by provincial forest services and other forest protective services. In 1940 the fire season was about normal for the Dominion as a whole, being better than average east of the Great Lakes and worse than average in Western Canada. Lightning caused 25 p.c. of the 1940 fires, as compared with 16 p.c. for the ten-year average, and smokers caused 18 p.c. of the 1940 figures as compared with the average figure of 16 p.c. Other causes, with percentages for the average period in parentheses, were camp-fires, 17 p.c. (20) and settlers 13 p.c. (17).

Of the 6,284 fires reported in 1940, 6,090 occurred on provincially or privately owned lands and 194 on Dominion lands; of the latter 104 were in National Parks, 83 on Indian lands and 7 in forest experiment stations.

Of the 6,090 fires that occurred on other than Dominion-owned lands, the greatest number (2,338) were reported by British Columbia, while Ontario reported 1,014. Over the ten-year period 1931-40, the average annual fires on other than Dominion-owned lands were 5,952, the averages for the same two provinces being 1,676 and 1,563, respectively. Alberta, with \$968,979, reported the greatest amount of damage in 1940, and was followed by British Columbia, with \$647,352.