

done to promote the growth of the best kinds of trees.

The second part of the work is that of finding out which parts of the country should be withdrawn from settlement and made into forest reserves.

The third part of the work is that of caring for the forest in that vast hinterland the opening up of which commands so great a share of the attention of the Canadian people. These parts of the work sub-divide themselves into activities each one of them having its own problems and opportunities and each one worthy of special description if this article were allowed to monopolize the space in this number of *The Civilian*. But it can only be pointed out here in the most general way how the Branch is organized for the carrying on of these vitally important services. The forest reserve policy of the Dominion Government was inaugurated in 1887 when the Rocky Mountain Park reserve of 4,500 square miles was established. Since that time more and more territory has been handed over to the control of the Forestry Branch. The latest is a sweeping enactment which makes a forest reserve of the whole eastern slope of the Rocky Mountains from the United States boundary to the British Columbia line that crosses the mountains diagonally at the north. On each of the larger reserves is a staff of technically trained men. The duties that are known are carried out with marked efficiency, especially that of keeping out the great enemy of the forest—fire, and the regulation of cutting timber on the reserves. But there are duties that are only now being learned—the reforestation of desperately burned areas, the keeping out of weed trees and the prevention of insect and fungus pests and so on. The thousand and one problems involved in all this are being faithfully and carefully studied by the Branch with a view to the improvement of the service, and trained and trust-

worthy men, as they can be found, are drafted into the work.

The exploratory surveys are carried on in the summer. The leader of a party, as a rule, is a trained man and permanent officer of the Branch. The assistants are usually students of the various Forestry Schools which have recently been established in Canada. The forest ranging service for the territory outside the regularly organized provinces covers practically the whole forested area, though not, of course, as effectively as might be done with a larger staff. By confining themselves to the travelled routes—which are the lines of danger, for fires are usually caused by men and not by lightning or other natural cause—they do an immense work for the protection of the forest.

The field service of the Branch has yet another most important department. This is the work of irrigation. Upon this work depends the addition to the cultivable area of immense tracts of land and the productiveness of every acre. In some respects this is the most interesting work in which officers of the Branch are engaged. So far as the legal bounds of their business is concerned the Commissioner of Irrigation and his staff have fine opportunities. Under the Irrigation Act, first passed in 1894 and subsequently amended, the water in the streams of the prairies is owned by the Dominion, riparian rights being confined to domestic use only. It then becomes a problem of engineering and government to distribute that water on the best Conservation lines. This involves, of course, endless problems, but at least those problems are not complicated as in some countries with conflicting claims of ownership and privilege. The Commissioner of Irrigation has his office at Calgary, and he has his staff of engineers and office helpers about him. Applications for water for power, irrigation or other non-domestic purposes are sent in. The facts are examined in-