



Yellowhead Pass, Jasper Park (Courtesy Dominion Parks Branch).

Botany, where he learns about the long series of experiments and trials by which nature finally perfected our modern tree. All through his work in forestry he will come in contact with other plants which influence to a greater or less degree the lives of trees, and he gets acquainted with them in his course in Botany. In a similar manner there are animals, particularly insects, that affect trees often disastrously. These are not studied in the first year, but the foundations for such study are laid by the course in Zoology. In most forestry schools a kind of introductory course to forestry is given to the first-year students, in which the forest conditions of the country and methods of lumbering are described, the principles of forestry are laid down, and the work of the various forestry organizations is presented.

Mathematics and Forestry.

Unless a practising forester is thoroughly grounded in mathematics he is handicapped throughout his professional life, since the principles of estimating and measuring timber, topographic and land surveying, making

roads and trails, etc., are based on mathematics, and so this subject is stressed in all forestry schools. Chemistry and Physics are fundamental subjects, and they are studied during the first year. The forestry student usually takes French or German in the first year, and at Toronto the language he selects he must continue for three years.

By this time the student, if successful, has completed his first year. His summer holidays are taken in the bush, where he carries chain or calipers trees in a timber cruising party, or assists in land classification and reconnaissance surveys, or works in a sawmill, in a paper mill, or on a log drive or acts as a camp cook; in fact, he takes any job that will give him practical experience. He may fight flies or other pests continuously; he may sleep on the ground in wet blankets during two weeks of continuous rain; he may spend his time on his knees in a forest nursery; he may repeat the same operation over and over again until the monotony of the thing nearly drives him frantic, but it stiffens the backbone and it is all good for the soil; it weeds out the non-courageous and the