FOREST ADMINISTRATION IN BRITISH COLUMBIA.

By P.Z. Caverhill.

he forest is a phenomenon of nature, and in some form or other was common to most regions of the globe except the extremely arid and extremely frigid. Forest administration is man's attempt to manage the forest and bend it to his will.

The history of all countries shows several periods of development in forest administration:

- 1st.- Forest intact as created and man's interest negative or limited.
- 2nd.- A pushing back of the forest to develop settlement.
- 3rd.- A realization of the nature of the forest and the development of the thought "the forest must be saved".
- 4th.- The beginning of silviculture.

We in British Columbia have reached the third stage. Even in the most highly developed forest countries they are only in the fourth. Silviculture is yet in its infancy and largely experimental.

Forest administration, therefore, has as a background the human will, which is the objective behind the management of our forest area.

British Columbia is still a young country. While settlement dates back less than a century, forest history is still younger. The first sawmill was erected in 1845; the first legislation was in 1870; and the first forest revenue recorded was \$1,263.41 in 1879-80.

The object of early administration was to build up a lumber manufacturing industry. This was plainly indicated by early leases (which required the erection and operation of a sawmill in connection with the lease), restriction of export, etc.

Later under the Licensing Act of 1905, coupled with the desire to meet the lumber men on the basis of further stability, was the desire on the part of the Province to receive more revenue from this great natural resource. During this time there was no thought of conservation, and the administration was little more than a depository, taking in funds on the one hand and issuing receipts in the form of timber licenses on the other. In fact, two clerks did the whole business.

About this time some other phases of forest work

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began to appear-in 1906 log scaling and some desultory attempts at forest protection.

With the compilation of the Royal Commission's Report on Timber in 1910, and the enactment of the "Forest Act" in 1912, we entered the door of the third period, the period of timber appreciation.

"The Forest Act" laid down these objectives:

- 1st, Industrial Development,
- 2nd, Conservation of Forest Resources,
- 3rd, Forest Culture or Silviculture.

These objectives are the background for our administration to-day, and in a large measure our work centres around these objectives. Thus:

Industrial Development.

(a) Timber Sales.

In order to provide for small industrial undertakings and to salvage small units of timber the Branch makes sales of timber on the competitive principle, after cruising and appraisal. Between 600 and 800 sales are made each year, involving several hundred million feet of material. The cut from sales for the past five years has averaged 290 million feet, board measure, including ties and poles.

(b) Royalty Adjustments.

Arranging a fair division of the value of standing timber, as between the Industry and the Department.

(c) Scaling.

Arbitrate as between buyer and seller by giving an impartial scale and grade of all logs cut west of the Cascades. This means scaling approximately 2,000,000 M. of material per year.

(d) Forest Products Laboratories (developed by the Dominion Forest Branch) and market extension work show what industrial use can be made of waste material and where markets can be found.

Conservation of Forest Resources.

(a) Forest Protection Organization for fire prevention and control, combating some 2,500 fires each year, with an expenditure, depending on the yearly hazard, of from \$500,000 to \$1,000,000.

(b) Forest Products Laboratory work in closer utilization.

(c) Land Classification to prevent alienation, for other purposes, of land chiefly valuable for forests. 237,000 acres were classified during the past year, 18,000 acres, containing timber valued at \$400,000, recommended for reserve.

(d) Waste Studies.

Survey of materials left after logging operations, with a view to determine what use may be made of this material.

This waste problem is one of the most important which remains for solution. The material left from a logging operation often reaches 25 per cent of the stand. This not only involves the non-use of material that has taken years to produce, but increases the fire hazard and the cost of logging, and hampers reproduction.

Forest Culture.

(a) Regeneration studies, growth studies, permanent sample plots for yield tables, site history maps, and many other detailed studies, which will form the basis of silvicultural work in the future, are being undertaken on the Coast and in the Northern Interior.

(b) Forest Reserves, permanently dedicated to forest production, have been created aggregating 5,440,000 acres, of which 1,250,000 were added during 1926.

(c) Cruising and General Reconnaissance.

During the current year 1,000,000 acres were cruised, of which 880,000 were on Forest Reserves and will form the basis of working plans.

Forest management to be effective must be built on the hard basis of economics - we cannot grow timber and only market the higher grades. There has been considerable agitation of late re reforestation, by which is meant artificial planting. Hand in hand with artificial planting, as it is conducted on an extensive scale, goes weeding and thinning at early ages. Under our conditions of development such things are uneconomic, a direct outlay from which no return can be expected. Moreover, and fortunately for us, all studies yet completed indicate that with control of the fire hazard we will get a satisfactory restocking five to ten years after cutting. Fire will retard this eight to ten years, but it is only severe and repeated fires that will denude our forest land.

All this means a tremendous change in the past twenty years, both in public sentiment and in the work which the Forest Branch must assume. From the two clerks in 1906 we have now built up a staff of five hundred persons, with accommodation and equipment running into thousands of dollars. We have established, then, the basis of administration, which includes not only the development of the present stand of timber, but the growing of new crops. Are we advancing along the road toward our objectives, Forest Management and Silvicultural Practice, with sufficient speed? This is a question all foresters should ask. If not, what are the obstacles and how can they be removed? Are we placing too much emphasis on this or that phase of the work? Should the Government

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be left to shoulder the whole burden of timber growing? In Europe not more than 15 to 20 per cent of the forest is State operated, and in the United States Colonel Greeley is authority for the statement that more work should be done by the individual states and private persons.

Are the conditions in the profession such that it attracts and holds the best men?

How can overlapping be avoided?

These are all questions which will help to put Forest Administration on that firm, stable basis of economic fact. These are all questions which this Society may help to find an answer for, and thereby help Forest Administration along to its final objective.