

# DOMINION PARKS

## No. 1.

### REPORT OF THE COMMISSIONER OF DOMINION PARKS.

OFFICE OF THE COMMISSIONER OF DOMINION PARKS,

EDMONTON, ALBERTA, April 1, 1911.

The Honourable FRANK OLIVER,  
Minister of the Interior,  
Ottawa, Ont.

SIR,—I have the honour to submit herewith my third annual report as Commissioner of Dominion Parks for the year ending March 31, 1911.

For convenience I have arranged the report under the following heads:—

1. Report of the Commissioner of Dominion Parks.
2. Report of the Superintendent of the Rocky Mountains Park.
- 2A. Report of the Curator of the Banff Museum.
- 2B. Analysis of Nationalities of visitors to Banff Springs and Hotels.
3. Report of the Superintendent of Yoho and Glacier Parks.
4. Report of the Superintendent of Jasper Park.
5. Report of the Superintendent of Buffalo Park.
6. Report of the Superintendent of Elk Island Park.
7. Report of the Superintendent of Waterton Lakes Park.

In presenting my report for the year ending March 31, 1911, I have attached reports from the superintendents of the different parks in control of this branch of the Department of the Interior. These reports give in detail an account of the work carried on in, and the operation of the parks under their charge.

In the month of June, 1910, the office of the Commissioner of Dominion Parks was moved from Banff to Edmonton in order that the commissioner might be in closer touch with the organization of the new park in the Jasper Pass, and the Buffalo and Elk Island parks. I had, up to that time, been acting as superintendent of the Rocky mountains park at Banff, and my removal to Edmonton necessitated the appointment of a new superintendent for the Rocky Mountains Park. Accordingly, Mr. A. B. Macdonald was appointed to the position, and took charge in June, 1910.

I had previously arranged an outline of the work to be done in the Rocky mountains park during the year, so, as will be seen by his report, a large part of his duties outside of the routine work of the superintendent's office, was the completion of the work already arranged for.

#### REVENUE OF PARK.

It will be noticed that the revenue of the Rocky Mountains Park continues to show a steady and satisfactory increase over that of former years. For the year just ended the revenue of the park from all sources was fully 35 per cent over that of the previous year, and almost equalled the amount voted by parliament for the

maintenance of that park. The revenue is derived from baths, sulphur water, ground rents, coal royalties, timber dues, livery and other licenses and permits; also a few other minor sources, and it is pleasing to note that every department shows an increase.

#### GAME AND FIRE PROTECTION.

Since the inauguration, in 1909, of a system of game and fire protection, by the appointment of permanent game and fire wardens, whose duty it is to patrol the park, the game in the park has greatly increased and the animals are coming closer to the village of Banff and the paths of the tourists, and are less timid. As a matter of fact it is no uncommon occurrence to see deer on the lawns of the residences of Banff. A band of eighteen mountain sheep wintered last year within one half mile of the Canadian Pacific railway station at Banff. This has been largely due to the exclusion of dogs from the park and the enforcement of the regulation prohibiting the carrying of any, but sealed, fire-arms within the confines of the park. The fact that these game wardens are constantly patrolling the park has resulted in the almost total abolition of the poaching, and only one or two instances of this were brought to the attention of the park superintendent during the year. A conviction was secured in one case, and a heavy penalty imposed, which will have the effect of preventing a recurrence of the offence.

In my opinion a strict enforcement of the regulations will result in a very rapid increase in the numbers of game, and thus an additional attraction will be furnished for tourists visiting this favourite resort.

There is no doubt that the patrolling daily of the park by the fire guardians, and the enforcement of the regulations regarding camping parties, has been largely responsible for the small amount of damage by fire reported, and is sufficient proof of the wisdom of having permanent men on the ground. In many cases, when out on patrol, they have been able to discover and extinguish small fires before they had made much headway, and have thus been enabled to preserve much of the natural beauty of the park. These small fires were, in most cases, caused by the thoughtlessness of smokers, but in such an extended area, where there are so many such persons, it is almost impossible to fix the responsibility in every case.

The above remarks will also apply to the Yoho and Glacier parks, where the conditions are almost similar. These parks are, year by year, becoming more favourite resorts for tourists as their natural beauty and charm become better known. The revenue from these parks also shows a very satisfactory increase.

#### PERMANENT IMPROVEMENTS.

As will be seen by the reports of the superintendents of these parks, a more than usual amount of work was done during the year in the parks along the main line of the Canadian Pacific railway. Perhaps the most important work was the completion of that part of the coach road within the Rocky Mountains Park connecting Banff with the city of Calgary. Three new bridges were built on this road, which is now in a passable condition. It is understood that the Alberta government intends, during the summer, to expend a considerable amount of money on the road east of the park, so as to make it possible to travel by automobile from Calgary to Banff. This should attract a greatly increased number of visitors from that city.

It is also intended to extend this year the coach road to Castle mountain and Laggan, an appropriation for which has been made by parliament. This road will greatly increase the efficiency of the fire patrol system. Running as it does along the north of and parallel to the main line of the Canadian Pacific railway, it furnishes a fire-break on that side of the railway; and with the Bow river on the



## SESSIONAL PAPER No. 25

south side, the railway will be practically fire-guarded on both sides through the park. From Castle mountain the road can be extended some eight or nine miles to the limits of the park at Vermilion Pass, to connect with the road now under construction by the British Columbia government, from that pass, through the Windermere valley, to Fort Steele and Cranbrook. Tourists to the Rocky Mountains Park would thus have easy access to the beautiful Columbia valley, which would provide an additional attraction for them.

In the Yoho Park, as will be seen by the report of Mr. Hunter, a considerable amount of work was done in the townsite of Field in opening up and grading new streets and in moving a number of buildings erected by squatters on the streets before this area was taken into the park limits. The townsite lots were placed on the market during the year, and a considerable number of them have been leased for a term of forty-two years, under the usual parks regulations. In future a considerable revenue will be derived from this park.

In addition to this about four miles of entirely new road was constructed, including the extension of the road up the valley of the Yoho river to the beautiful Takakkaw falls, which excite the wonder of every visitor, and will prove one of the great future attractions of the park. In addition there was built a new road about one mile in length from the Emerald lake road to the natural bridge over the Kicking Horse, giving access to a very beautiful piece of scenery.

A considerable amount of work on the trails in Glacier Park was done during the year, as shown by the report of the superintendent, and a number of new trails were opened to different beauty spots in the park.

One of the heaviest items of expenditure on work of road building during the coming season will be the construction and extension of the coach road from Banff to Laggan. It is hoped that from fifteen to twenty miles of entirely new road will be completed this year. This will be the chief feature of the work in the Rocky Mountains Park during the year, the other work being merely some small road and trail connections in the vicinity of Banff. We have also called for tenders for the construction of over fifty miles of trail in the vicinity of Banff, which will not only be a great convenience to tourists, but will be of immense value in perfecting the patrol system of the park in permitting the fire and game guardians to reach the outlying portions more quickly and easily.

## ANIMALS IN CONFINEMENT.

The report of the superintendent of the Rocky Mountains Park shows that the animals in confinement in the paddocks and at the museum have done unusually well, and the collection has been increased, not only by natural increase, but by the addition of new specimens.

This feature of the attractions at the park is one of the most popular ones. This is evidenced by the large number of people who visit the paddocks and the museum, and spend hours at a time watching and studying the habits and actions of the different animals.

## INCREASED NUMBER OF VISITORS.

During the year 63,494 visitors registered at the hotels and summer cottages in Banff, an increase of 7,042 over the previous year, and more than double the number registered in the year 1907. These represented, so far as ascertained, twenty-six different nationalities.

I have before me the annual report of the superintendent of the Yellowstone Park in the United States for 1910, which gives the total number of visitors to that

2 GEORGE V., A. 1912

resort as 19,575 for the year. From this it will be seen that more than three times as many people visit Canada's national park as visit the favourite tourist resort of the United States.

Judging from the increasing number of visitors year by year, it is reasonable to expect that there will be a still further increase in future years, and that additional accommodation, in the way of baths, &c., is an absolute necessity if the park is to retain its present popularity as the favourite resort of the continent.

The value of this large tourist traffic, as an asset of the Dominion of Canada, in direct revenue, may be judged from the following extract from the report of Commissioner Whipple of the Adirondack parks in New York state:—

'The Commission's report shows that Adirondack hotels in Clinton county accommodate 3,153 persons; Essex, 7,719; Franklin, 4,626; Fulton, 410; Hamilton, 2,395; Harkimer, 2,415; Lewis, 510; Oneida, 150; St. Lawrence, 1,223; Warren, 3,060; or a total of 28,502 persons. The above figures do not include the private camps and sanitariums. The average length of time spent in the Adirondacks by each visitor is about two weeks; hence it is figured that in those days about 200,000 people sought recreation and health in that region. This estimate was proved to be about right by the reports of the railroads—the Central and the Delaware & Hudson—which showed that 225,000 passengers were carried during the summer season.

'It was estimated that more than \$7,000,000 were invested in hotels and boarding houses, and about \$4,000,000 in private camps and cottages. The total wages paid to 18,307 guides, clerks, servants, cooks, &c., were \$991,550; cash paid for board, carriages, boats, &c., amounted to \$5,213,210; for railroad fares, \$875,000. Thus more than seven millions were spent by summer resorters. This business is largely dependent upon standing forests. The water-power, developed and undeveloped, of much greater value, also depends upon the forest. Present lumbering methods are the great power which works toward the ruin of these two great industries.'

It is a well known fact that the natural attractions of the Adirondack Parks do not compare with those of Canada's National Parks, and there is no doubt that in a very few years the number of tourists to these parks will be greater than that to the Adirondacks, and that their stay will be of longer duration.

#### ALPINE CLUB OF CANADA.

The Alpine Club of Canada continues to attract widespread attention to the Canadian mountain ranges. The Club House at Banff was open, as usual, all the season and an appreciable part of the secretary's time was daily taken up in giving information to strangers from all parts of the world.

The annual camp was held this year in Consolation Valley, near the lower lake. In spite of the long distance from the railway a large attendance was registered. A synopsis by provinces, states, and countries is here given.

#### FROM CANADA.

*British Columbia*—Chilliwack, Cranbrook, Field, Golden, Keremeos, Vancouver, Victoria.

*Alberta*—Banff, Brant, Calgary, Carbon, Cowley, Coleman, Crossfield, Leduc, Lethbridge, Okotoks, Pincher Creek, Red Deer.

*Saskatchewan*—Moosejaw, Regina, Saskatoon.

*Manitoba*—Lillyfield, Winnipeg.

*Ontario*—Peterborough, Pinkerton, Port Hope, Toronto, Walkerton, Woodstock.

*Quebec*—Montreal, South Durham.

## SESSIONAL PAPER No. 25

## FROM THE UNITED STATES OF AMERICA.

*Illinois*—Chicago, Galesburg.  
*Massachusetts*—Boston, West Newton.  
*Michigan*—Saginaw.  
*Minnesota*—Minneapolis, St. Paul.  
*Missouri*—St. Louis.  
*New Hampshire*—Antrim.  
*New York*—Brooklyn, New York.  
*Oregon*—Portland.  
*Pennsylvania*—Bryn Mawr, Philadelphia.  
*District of Columbia*—Washington.

## FROM OVERSEAS.

*England*—Buckhurst Hill, Croydon, London, Stoke-upon-Trent, Wimbledon.  
*Austria*—Vienna.  
*Italy*—Florence.  
*Sicily*—Rizzola.  
*Switzerland*—Interlaken.

The following mountaineering clubs were represented:—

The Alpine Club (England), The American Alpine Club, The German-Austrian Alpine Club, The Italian Alpine Club, The Swiss Alpine Club, The Appalachian Mountain Club, The Fell and Rock Climbing Club.

Members of the following learned societies were present:—The Royal Society, The Royal Geographical Society, The Royal Meteorological Society, The Royal Society of Medicine, The Zoological Society.

Thirty-three members graduated to full membership upon Mountains Bident, Fay, Temple, Stephen and Eiffel Peak. Among important climbs made were the first ascents of mountains Douglas, Babel, Quadra and Chimney Peak, the last being a hitherto unnamed peak to the south of Mount Fay, on the ridge between Prospectors valley and Boom lake. Assiniboine was ascended by a new route as well as by the usual one. Hungabee was also climbed. The two distinguished English mountaineers, Professor Norman Collie and A. L. Mumm, were again unsuccessful in their attempt upon Mount Robson, perhaps the most ill-conditioned as well as the highest peak of all the Rockies. In the Selkirks further explorations were made, and in recognition of their good work two members, S. H. Baker and Howard Palmer, were admitted to the fellowship of the Royal Geographical Society.

A small camp was also stationed in the upper Yoho Valley from which much good climbing was done.

Immediately after the annual camp the Club organized a small expedition for the purpose of showing some of the less known and greatest beauties of the Canadian Alps to Dr. Longstaff, the Himalayan explorer, and his sister. A week was spent in a journey to the head of the Bow Valley, across the mountains to the Yoho Glacier, returning by the incomparable Yoho Valley. Several mountains were climbed and some idea gained of the vast possibilities of the country from the point of view of an experienced mountaineer.

The club continues to grow and appeals yearly to a wider and more distinguished circle. A few years ago the Canadian Pacific Railway Company had much difficulty in finding work for their Swiss guides. During the past years it was impossible for mountaineers to obtain the services of any of them without long previous arrangements.

2 GEORGE V., A. 1911

## TOWN OF BANFF.

The town of Banff continues to increase in size and in the number of permanent residents. During the year a considerable number of cottages of a much superior class were erected. These are occupied principally by families from the four western provinces during the summer months. During the past couple of years I have noticed a marked increase in the number of people who come to Banff during the winter for their health and to get away from the bleak winds of the prairie, to spend the winter among the pines.

Among the improvements made may be noted the improvements of the Banff Springs Hotel by the Canadian Pacific Railway Company costing \$125,000. These consist of additions and changes to make the hotel more suitable for the accommodation of the large number of guests. It is also understood that improvements will be made to provide for winter as well as summer tourists and that it is the intention of the Company to keep the hotel open the whole year round.

The Canadian Pacific Railway Company has also completed, during the year, splendid new station 600 ft. in length for the accommodation of the travelling public, also a fine new station at Laggan. The company has also expended, during the year, about \$50,000 in improvements to the Lake Louise Chalet.

## NEW BATH HOUSE.

In former reports I drew the attention of the department to the total inadequacy of the accommodation at the baths at the sulphur hot springs. It has given me the greatest amount of pleasure to learn that the suggestions made in my reports have been recognized, and that an appropriation has been made by parliament for the purpose of erecting a modern bath-house. Work will commence early in October after the rush of the season is over, and we hope to have it completed in time for the season of 1912. Plans are now being prepared which provide for one of the most up-to-date bath houses on the continent of America, being principally of marble.

## BUFFALO PARK.

As will be seen by the report of Superintendent Ellis of the Buffalo Park at Wainwright, the animals in that park are doing exceptionally well, and a large natural increase may be expected in the future. The Buffalo imported from Montana have taken very kindly to their partial confinement and appear quite contented with the grazing ground provided by the government.

During the year seventy-four head were brought in from the Pablo range in Montana, and in order to introduce new blood into the herd it was considered advisable to purchase thirty head from the Conrad herd in the Kalisper valley. Fifteen of these were brought in in October 1910 and the remaining fifteen in March of this year. There is no doubt that the crossing of these with those of the Pablo herd will be of great benefit and counteract the effect of any inbreeding that may have taken place.

It was hoped that Pablo would have completely cleared the range and delivered all the animals contracted for by April 1, but, after repeated efforts, he was forced to abandon it as the animals had become scattered over a wide extent of country and could not be collected. Mr. Pablo is making another heroic effort to round up the balance of the herd and it is his intention, in the event of being unable to collect the whole of the number still at large, to shoot them without reserve. He is doing everything in his power to fulfil his contract to the letter and ship every animal that it is at all possible to secure. During the winter twenty-five old bulls, which had become very fierce, charging the riders and proving themselves a nuisance in the efforts to collect the other animals, were destroyed.

## SESSIONAL PAPER No. 25

I cannot speak too highly of the good faith of Mr. Pablo in connection with the delivery of the buffalo contracted for by the Canadian government. He has acted in an upright, honourable manner all through the transaction, and his failure to deliver the last animal in his herd has been through no fault of his.

At the present time there are 809 buffalo in the park, an increase of 110 during the year. The loss during the year was seven head, four of which, however, were injured in shipping, so that the actual loss in the park was only three head. It is the intention to move about fifteen or twenty buffalo to the Moose Mountain Park during the present summer as the nucleus of a herd in that Park, for which an inclosure, about 2,500 acres, will be fenced off. Conditions are favourable for the placing of a number of buffalo in this Saskatchewan park, which was one of their favourite feeding grounds. Hitherto they have all been placed in Alberta. Although the past winter was unusually severe, a comparatively small amount of hay was used to feed the buffalo, which were not fed more than six weeks during the winter. As soon as the mild weather set in the animals left the hay and went back to grazing in the open prairie.

The Buffalo Park has proved a success in every particular, and has shown the wisdom of the selection of the location, not only as a home for the buffalo, but for other animals native to the country.

During the year, 11 moose, 7 elk, and 9 antelope were purchased and placed in the park. All are doing remarkably well with the exception of the antelope, six of which have died, notwithstanding the most careful attention.

I would recommend that a number of old buffalo bulls be disposed of in the month of December, when their coats or fur are at their best, as it would appear that there is no object in keeping this surplus stock after they are ten or fifteen years of age. I have no doubt that better results, in the way of increase, will be achieved with a fewer number of bulls in the herd.

The park as it becomes better known is attracting a large number of visitors and there is no doubt that when the Grand Trunk Pacific railway is completed to the coast, it will be visited by thousands of tourists, as it will contain by far the largest herd of buffalo in the world.

## ELK ISLAND PARK.

In Elk Island Park, there are at present a total of 48 head of buffalo, the majority of which are males. The increase during the year was six, with no loss.

Some twelve hundred people visited this park during the summer, it being a favourite resort for campers from Edmonton and Fort Saskatchewan.

We also have a considerable number of moose, elk and deer which are increasing very satisfactorily.

## WATERTON LAKES PARK.

This new park in southern Alberta in the Waterton Lake district, situated along the International boundary line adjoining the Glacier Park in the State of Montana, is noted as being a favourite game preserve. This park, which was previously a forest reserve, was only taken over during the year by the department for park purposes, and contains an area of fifty-four square miles, the largest portion of which is mountainous. It has for years been a favourite camping ground for the people of southern Alberta. During the year, over two thousand people camped in the park, some of them remaining for periods of from two to three months. It is also a favourite fishing ground, the numerous small lakes which are fed by mountain streams being literally filled with trout.

The only work done in the Waterton Lakes Park was the cutting of a good horse trail, six feet wide and six miles long, from Cameron Falls in the park to the

2 GEORGE V., A. 1912

International boundary line. Tourists can now ride through to the road in Glacier Park and the boundary line can be patrolled so as to prevent poaching from the American side.

During the year, 150 villa lots were surveyed along the shores of the lake and already we have applications for a number of them for building purposes.

It is my intention, during the present year, to improve the present roads through the park and to construct several new roads, making it more easy to get to the boundary line on both sides of the lake, also to build trails to other points of interest.

#### JASPER PARK.

In my last annual report I made slight reference to Jasper Park, an area of over five thousand square miles along the route of the Grand Trunk Pacific railway, set apart a couple of years ago as a national park. At that time very little was known officially of this park, and no work of a permanent nature could be entered upon, owing to the fact that the railway construction had not reached the park. Mr. J. W. McLaggan, chief forest ranger, was appointed acting superintendent, temporarily, with two forest rangers. Mr. McLaggan's duties consisted of fire and game protection, carrying out the park regulations generally in regard to cutting timber, preventing squatters settling in the park and negotiating for the removal of those already there. He also had the oversight of the park generally, and one of the important parts of his work was the regulation of the stopping places and camps established in the park for the convenience of the railway construction work and to see that they were placed in such locations as, while serving the purpose for which they were established, would not destroy any of the natural beauties of the park. He also took care that no undesirable class should be allowed to enter the park and establish places of resort which might not be to the welfare of the men engaged in railway construction.

At the time that the park was reserved by the government there were a number of squatters settled in it, some of whom had been there for a great many years, in fact some of them had been born there and had grown up in the Jasper Pass. As it was not desirable that they should remain in the park, and as they had certain rights, negotiations were entered into for their peaceful removal. These negotiations, I am pleased to state, were, with one exception, successful; and at the present time only one man has refused the terms offered by the government and persists in retaining the lands on which he settled as a squatter.

As will be seen by the report of Mr. McLaggan, in spite of the fact that railway construction is being carried on through the entire length of Jasper Park and that a large number of men are employed, the park regulations are being well enforced. There has been very little destruction from forest fires, or killing of game or lawlessness. Mr. McLaggan reports having had the hearty support of the railway company and contractors in carrying out his duties. Without this co-operation it would have been impossible to have prevented destructive fires where such a long stretch of right-of-way is being cleared and where there are so many freighters camping along to tote road. The railway grading work extends for sixty miles within the park limits and thousands of men and hundreds of teams were employed. These freighters often camp at noon and some of them at night in the open and build camp fires. This required constant supervision and patrolling and there is no doubt that had this not been done, serious fires would have resulted.

In March of this year, I made a trip of personal inspection to Jasper Park, for the purpose of investigating as to whether it would be advisable to engage in any work of a permanent nature during the coming season.



## SESSIONAL PAPER No. 25

I left Edmonton on March 24th, travelling by the Grand Trunk Pacific Railway to the end of steel at Prairie Creek, 183 miles west of Edmonton and three miles from the eastern boundary of the park. At Prairie Creek I was met by Mr. McLaggan and together we made the trip by team through the park, travelling over the tote road built by Foley, Welch & Stewart, contractors for the grading work of the Grand Trunk Pacific, for the purpose of freighting goods to their different camps along the right-of-way.

The first day's travel brought us to the Jasper Park Collieries, near the mouth of Fiddle creek, twenty-two miles within the park by rail and twenty-five miles by the tote road. The park up to this place is practically the entrance to the foot hills, the valley of the Athabaska river being from five to eight miles wide and mostly timbered with spruce and jackpine. An extensive timber limit extends into the park, the timber not being of a very high class for commercial purposes.

One of the purposes of my trip was to investigate the feasibility of establishing a townsite at or near the mouth of Fiddle Creek, about ten miles up which the hot sulphur springs are located. These springs, which I visited on my former trip, are located just east of Mount Roche A'Miette, whose sphynx-like head rises 9,000 feet above the level of the sea and forms a landmark for miles in every direction. The springs are at an altitude of 4,200 feet and are about 1,200 feet above the Grand Trunk Pacific. Two of the cluster of springs boil out of the side of a very high mountain and have a temperature of 116 degrees, which is three degrees hotter than the sulphur springs at Banff. They are highly charged with mineral properties and have a flow equal to the intake of a four inch pipe. There are a number of other springs in the immediate vicinity, one of which has the remarkable temperature of 125 degrees.

The canyon of Fiddle Creek, leading to the springs, is one of the most magnificent pieces of scenery yet discovered in the Rocky Mountains. This canyon towers for hundreds of feet, and in places the channel, worn by the water in past ages and through which it rushes with a mighty roar, is not more than twenty feet in width. To my mind this will become a very attractive place of resort for tourists in the future.

After an investigation of the mouth of Fiddle creek I concluded that it would not be advisable to make any survey of a townsite there until a traverse and survey of Fiddle creek had been made and also of the shortest route by which to pipe the water, which, from my present knowledge, I would consider probably to be at the Jasper Park Collieries, as being the nearest point to the springs and the most convenient to the railway lines. I would also recommend that surveyors be sent in there, during the coming year, with a view to locating a route for a carriage drive from the railway line to the springs, not particularly to locate the shortest route, but one that will give access to the beautiful scenery in the canyons, &c., leading to the springs. There is a very suitable location for a townsite near the collieries, which I consider more advantageous than that at the mouth of Fiddle creek. However, either one would be well adapted for the purpose.

At the Jasper Park Collieries, where we spent the night of March 25, a large amount of development work has been done, considering the fact that the company started operations only about a year ago. At the time of my visit a tunnel had been run 900 feet and was in a solid face of coal. Twenty-five men were employed and development work along different lines is being pushed ahead pending the laying of the steel on the Grand Trunk Pacific to this point. The mouth of the present tunnel is 275 feet above the railway line, and it is the intention of the company to drive another tunnel lower down and only a few feet above the track. The claim consists of 1,080 acres of coal lands on which three seams of fourteen feet, thirteen



2 GEORGE V., A. 1912

feet and five and a half feet in thickness have been explored for the entire length. The coal is of a very high quality of bituminous, somewhat similar to that found in the Crowsnest Pass, and is especially adapted for steam and domestic purposes.

A test of its cooking qualities was made in a crude stone coke oven built at the mine, the result being highly satisfactory, the product being pronounced equal to the best manufactured anywhere. The company have built excellent quarters for their employees and I found everything in connection with it in first-class condition. They are at present engaged in the construction of a tramway from the tunnel mouth to the railway track and a tippie for loading cars. They expect to be in a position when the railway reaches this point, to supply all the coal required for the operation of this section of the road, in addition to a supply for shipment east for domestic and other purposes. The company is composed, principally, of local men with some outside capital.

From the townsite at the Collieries, previously mentioned, a magnificent view can be had of the broad valley of the Athabaska, alternating in meadow and clumps of trees, which gives it a beautiful park-like appearance. This with the mountains, including the Roche A'Miette and other peaks, as yet unnamed, forms one of the most lovely scenes imaginable.

I might mention here that in the valley at this point a band of twenty-eight horses lived out during the whole of the past winter, and on the occasion of my visit although they had not been fed anything but what they could rustle for themselves, were fat and sleek and in fit condition to go to work at any time. This would indicate that the climate in Jasper Park is even milder than that farther south. As a matter of fact the lack of snow during the past winter was one of the greatest drawbacks against which the railway contractors had to contend, there being only about three weeks of sleighing and in many cases freighters used wagons the whole season. This is the more remarkable in view of the fact that further east and south the winter was more than usually severe and the snowfall unusually heavy.

Fourteen miles west of the Jasper Park Collieries the Grand Trunk railway line crosses the Athabaska river at a very slight elevation above the water. The concrete piers were being constructed and it is expected that trains will be crossing the river in June of the present year. By that time it is hoped to have the grade completed to the entrance to the Yellowhead Pass, where the line leaves the Athabaska river and follows the Miette river to the summit, and to have the steel laid to this point by the end of July.

After crossing the river the drive up the valley is one of transcendent beauty. The valley is from three to five miles in width and is a natural park partially wooded and partially open grazing land. About eighteen or twenty years ago it was swept by a fire which destroyed almost all the timber, and the young timber, which at places is very dense, is making a very rapid growth. It would appear that nature intended this for the purpose to which it has been devoted.

At places the valley narrows and on rounding some point of rock or foothill new vistas of beauty meet the gaze. At different places the river expands into shallow lakes, the principal of which are Brulé lake and Jasper lake. Fish lake, a beautiful sheet of water, is separated from Jasper lake by a narrow ridge of land over which the line of the Grand Trunk Pacific runs for about three miles.

On either side of the valley are ramparts of hills behind which are towering snow-capped mountains rising in majestic grandeur and overlooking the beautiful valley. What is beyond this first range of mountains is yet unknown and it will for years to come form an inviting field for the adventurous exploring tourist.

Innumerable mountain streams, fed by the glaciers on the mountain tops, come rushing down over waterfalls and rapids to mingle their pure waters with those of the Athabaska. At one place, known as 'The meeting of the Waters,' where a

## SESSIONAL PAPER No. 25

number of small streams join the Athabaska, there is a scene of surpassing beauty. The river leaves Jasper lake by seven distinct channels, forming beautiful little wooded islands. These channels unite again to form one broad river. Along the route are a number of places of historic interest.

Nothing remains to mark the site of the old Jasper House, which at one time was a busy trading post of the Hudson's Bay Company, except a pile of stones which formed the rude fire place and some dilapidated graves, with their tumble down and decaying wooden palings and crosses which mark the sleeping places of those who in the long ago spent their lives in this remote part of the west.

The ruins of Henry House, the former headquarters for this region of the North West Fur Company, are just opposite the point where the Maligne river joins the Athabaska and is another point of historic interest, and it seems a pity that these two houses could not have been preserved as relics of the past.

At intervals along the valley are camps of graders and stopping places for freighters and travellers. These I found in good condition and, in general, conforming to the park regulations governing such places.

Forty-eight miles of the valley of the Athabaska from the eastern boundary of the park and at the junction of the Miette and Athabaska rivers is the proposed divisional point of the Grand Trunk Pacific. At present it is named by the Railway Company. 'Fitzhugh,' in honour of the Fourth Vice-President of the Grand Trunk Railway Company. The townsite is located on a level plateau about sixty feet above the valley of the Athabaska river. It is about two miles in length and about a mile in width. It appears to be well adapted for all the purposes of a divisional point and for a townsite on which to locate a tourist resort. The townsite overlooks the beautiful wooded valley of the Athabaska, which here stretches away for miles to the southwest, forming a very lovely picture. The Miette river comes rushing down from the summit of the Pass, fourteen miles distant, to swell the waters of the Athabaska. In the background, in every direction, are towering mountains, and among the hills, at an elevation of about 200 feet above the townsite, is a bench of land with two beautiful little lakes of the purest water. These, in addition to proving a great attraction to tourists, would supply sufficient water for a considerable town, which will undoubtedly grow up here, both from a tourist point of view and as a place of residence for employees of the railway. A survey of a tourist townsite for park purposes will be made during the coming season. This will be the starting point for many tourist parties up the valley of the Athabaska to the falls about ten miles distant. These falls have a sheer drop of eighty feet and are about 150 feet in width. The town will also be on the direct route to Mount Robson, which will be a future mecca for mountain climbers, as being the highest peak and the most difficult of ascent of any in the Rockies.

A contract has been let for the construction of a trail to Maligne lake, a distance of about thirty miles, to be finished before the end of June. This lake has been described by Mrs. Schaffer, of Philadelphia, the only person of note who has ever visited it, as being the most beautiful sheet of water she has seen in fifteen continuous years of exploration in the Rocky Mountains.

Fitzhugh is at present the headquarters for the engineering staff of the Grand Trunk Pacific, also the base of supplies for all construction material for the railway and will remain so until the steel reaches Tête Jaune Cache. The townsite is overgrown with a thick growth of young evergreens, which only require to be thinned out to form one of the loveliest parks imaginable.

I might here mention that the Canadian Northern Railway Company has its line surveyed through the park parallel to and at a short distance from the Grand Trunk Pacific, but as yet has done no grading in the park limits. While the Grand Trunk Pacific enters the park on the east side of the Athabaska river, the Canadian

2 GEORGE V., A. 1912

Northern railway enters on the west side of the river and does not cross the river at all within the park. In passing through the Yellowhead Pass both lines will traverse the valley of the Miette river, which at places is very narrow, and it would seem that considerable engineering difficulties will be encountered to provide room for both roads. The grade up the Athabaska river valley to the entrance of the Yellowhead Pass is the easiest of any on the continent of America, the grade of the Grand Trunk Pacific from the entrance of the park to the summit being only four-tenths of one per cent, with very little rock work. In fact the construction of the road for this distance presents no more difficulties than building a road over the prairie. The altitude at Fitzhugh is only 3,520 feet and the altitude of the summit, at the highest point of land along the railway line, is 3,715 feet.

I have been repeatedly asked to make a comparison of the attractions of the Jasper Park and the Rocky Mountains Park, but have always refrained from making any such comparison. Both have their distinctive features, which must make them continue, for all time, favourite resorts for tourists from all parts of the world. It is hoped that in a short time the two parks may be united by adding the territory which now separates them, forming one continuous park, the largest in extent, and containing the greatest variety of and the most magnificent scenery in the world.

There are many other matters of which I would like to speak at this time in connection with these parks and the importance of keeping the public in close and intimate touch with our work. I feel that, if we are to attain our highest usefulness in the work we are trying to do, it is absolutely essential that we have the hearty co-operation and sympathy of the people of Canada and that they will see to it that means are not lacking to carry the work to a successful issue.

In conclusion, I wish to express my appreciation of the generous support given to the work by the Honourable the Minister of the Interior, and to congratulate his department on its excellent choice in the appointment of the superintendents of the different parks. These gentlemen have fulfilled their duties faithfully, honestly and in the best interests of the department. Every other official of the department with whom I have had dealings has accorded me the most courteous treatment and all appeared to be anxious to further the interest of what I consider to be one of the greatest assets of the Dominion.

Appended you will find the reports of the superintendents of the different parks under my supervision.

I have the honour to be, sir,

Your obedient servant,

HOWARD DOUGLAS,

*Commissioner of Dominion Parks.*

1 GEORGE V., A. 1911.

## DEPARTMENT OF INTERIOR—INSIDE SERVICE

Name.	Division.	Title of Office.	Date of Present Appointment.	Salary.	Date of Birth.	Date of First Permanent Appointment.
				\$ cts.		
Cory, William Wallace, C.M.G.	.....	Deputy Minister.....	1 Jan. '05	5,000 00	16 June '65	1 Jan. '05 *5 Jan. '01
Côté, Joseph Arthur.....	1-A.	Asst. Deputy Minister	1 Apr. '08	3,850 00	24 Nov. '62	1 Dec. '86 *23 Oct. '82
Gibson, Roy Alexander.....	2-A.	Clerk.....	1 Sept. '08	2,100 00	3 Oct. '84	1 Sept. '08 *10 Feb. '08
May, Miss Kathleen Maud Weir.	2-B.	do .....	1 July '06	1,500 00	8 Feb. '63	1 May '91 *19 Oct. '83
Lang, Miss Jane Allison.....	3-B.	do .....	1 Sept. '08	800 00	29 Sept. '84	1 Sept. '08 *5 Sept. '05
Dixon, Miss Aimée.....	do	do .....	1 Sept. '08	700 00	14 Nov. '87	1 Sept. '08 *18 Nov. '07
Murphy, Austin Joseph.....	.....	Messenger.....	1 Sept. '08	700 00	6 May '77	1 Sept. '08
Harkin, James Bernard.....	1-B.	Chief Clerk.....	1 Apr. '07	2,300 00	30 Jan. '75	2 Dec. '01
		Private Sec'y to Minister of Interior	8 Apr. '05	600 00		
Featherston, Joseph Emerson	do	Chief Clerk.....	1 Apr. '10	2,100 00	27 May '80	1 Sept. '08 *27 Apr. '05
Forbes, Edward Stanley.....	2-B.	Clerk.....	1 Apr. '10	1,200 00	2 Mar. '82	1 Apr. '10 *1 May '08
Shea, John James.....	do	do .....	1 Sept. '08	1,100 00	21 Aug. '75	1 Sept. '08 *6 June '03
Crawford, Miss Alice, Grace Evangeline.	3-A.	do .....	6 Aug. '01	1,200 00	20 Feb. '72	6 Aug. '01 *6 Feb. '96
Williams, Miss Mabel Berta, B.A.	do	do .....	20 Sept. '05	1,150 00	18 Feb. '78	1 July '04 *19 Jan. '01
Johnson, Miss Annie Edith...	do	do .....	1 Apr. '10	900 00	8 Mar. '83	1 Sept. '08 *26 Oct. '06
Scott, Miss Mary McKay ...	3-B.	do .....	1 July '04	800 00	17 Aug. '51	1 July '04 *12 Jan. '00
McDonald, Miss Christine.....	do	do .....	1 June '09	500 00	13 Feb. '89	1 June '09 *8 Feb. '09

## ACCOUNTS BRANCH.

Beddoe, Charles Henry.....	1-A.	Superintending Accountant.	1 Sept. '08	3,000 00	17 Aug. '50	30 Apr. '83
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## Expenditure Division.

Marchand, Pierre.....	1-B.	Assistant Accountant	1 July '07	2,200 00	25 Dec. '66	12 Dec. '99
			20 July '05			
Dunnet, James.....	2-A.	Clerk.....	1 Apr. '08	1,750 00	4 Feb. '47	1 July '79 *1 Apr. '78
Turner, Henry Hamish ....	do	do .....	31 Aug. '08	1,700 00	21 Sept. '49	1 Mar. '84 *20 June '83
Willoughby, Samuel John...	do	do .....	1 Apr. '09	1,650 00	22 Mar. '65	1 Jan. '87 *12 Jan. '86
Pinard, Alphonse.....	2-B.	do .....	1 Sept. '08	1,200 00	29 Jan. '49	1 Sept. '08 *4 Mar. '07
Ryan, Thomas Walter.....	do	do .....	1 Sept. '08	1,200 00	13 Aug. '68	1 Sept. '08 *1 Feb. '08
Purcell, Denis Peter.....	do	do .....	1 Sept. '08	1,150 00	5 Feb. '71	1 Sept. '08 *6 Nov. '01
Anderson, John.....	do	do .....	1 Sept. '08	1,100 00	15 July '78	1 Sept. '08 *15 June '06
Fortier, Arthur.....	do	do .....	1 Sept. '08	1,100 00	14 Apr. '81	1 Sept. '08 *20 Aug. '08

\*Date of Temporary Appointment.

# DOMINION PARKS

## No. 1.

### REPORT OF THE COMMISSIONER OF DOMINION PARKS.

OFFICE OF THE COMMISSIONER OF DOMINION PARKS,

EDMONTON, ALBERTA, April 1, 1911.

Honourable FRANK OLIVER,  
Minister of the Interior,  
Ottawa, Ont.

SIR,—I have the honour to submit herewith my third annual report as Commissioner of Dominion Parks for the year ending March 31, 1911.

For convenience I have arranged the report under the following heads:—

1. Report of the Commissioner of Dominion Parks.
2. Report of the Superintendent of the Rocky Mountains Park.
- 2A. Report of the Curator of the Banff Museum.
- 2B. Analysis of Nationalities of visitors to Banff Springs and Hotels.
3. Report of the Superintendent of Yoho and Glacier Parks.
4. Report of the Superintendent of Jasper Park.
5. Report of the Superintendent of Buffalo Park.
6. Report of the Superintendent of Elk Island Park.
7. Report of the Superintendent of Waterton Lakes Park.

In presenting my report for the year ending March 31, 1911, I have attached reports from the superintendents of the different parks in control of this branch of the Department of the Interior. These reports give in detail an account of the work carried on in, and the operation of the parks under their charge.

In the month of June, 1910, the office of the Commissioner of Dominion Parks was moved from Banff to Edmonton in order that the commissioner might be in closer touch with the organization of the new park in the Jasper Pass, and the Yoho and Elk Island parks. I had, up to that time, been acting as superintendent of the Rocky mountains park at Banff, and my removal to Edmonton necessitated the appointment of a new superintendent for the Rocky Mountains Park. Accordingly, Mr. A. B. Macdonald was appointed to the position, and took charge in June,

I had previously arranged an outline of the work to be done in the Rocky mountains park during the year, so, as will be seen by his report, a large part of his work outside of the routine work of the superintendent's office, was the completion of the work already arranged for.

#### REVENUE OF PARK.

It will be noticed that the revenue of the Rocky Mountains Park continues to show a steady and satisfactory increase over that of former years. For the year ended the revenue of the park from all sources was fully 35 per cent over that of the previous year, and almost equalled the amount voted by parliament for the

Northern railway enters on the west side of the river and does not cross the river within the park. In passing through the Yellowhead Pass both lines will follow the valley of the Miette river, which at places is very narrow, and it would be considerable engineering difficulties will be encountered to provide room for both. The grade up the Athabaska river valley to the entrance of the Yellowhead Pass is the easiest of any on the continent of America, the grade of the Grand Trunk from the entrance of the park to the summit being only four-tenths of one per cent with very little rock work. In fact the construction of the road for this distance presents no more difficulties than building a road over the prairie. The altitude at Fitzhugh is only 3,520 feet and the altitude of the summit, at the highest point of land along the railway line, is 3,715 feet.

I have been repeatedly asked to make a comparison of the attractions of Jasper Park and the Rocky Mountains Park, but have always refrained from making any such comparison. Both have their distinctive features, which must continue, for all time, favourite resorts for tourists from all parts of the world. I hoped that in a short time the two parks may be united by adding the territory which now separates them, forming one continuous park, the largest in extent, and containing the greatest variety of and the most magnificent scenery in the world.

There are many other matters of which I would like to speak at this time in connection with these parks and the importance of keeping the public in close and intimate touch with our work. I feel that, if we are to attain our highest usefulness in the work we are trying to do, it is absolutely essential that we have the hearty cooperation and sympathy of the people of Canada and that they will see to it that the means are not lacking to carry the work to a successful issue.

In conclusion, I wish to express my appreciation of the generous support given to the work by the Honourable the Minister of the Interior, and to congratulate the department on its excellent choice in the appointment of the superintendents of the different parks. These gentlemen have fulfilled their duties faithfully, honestly and in the best interests of the department. Every other official of the department with whom I have had dealings has accorded me the most courteous treatment and all appeared to be anxious to further the interest of what I consider to be one of the greatest assets of the Dominion.

Appended you will find the reports of the superintendents of the different parks under my supervision.

I have the honour to be, sir,

Your obedient servant,

HOWARD DOUGLAS,

*Commissioner of Dominion Parks.*

## SESSIONAL PAPER No. 25

N.W.T., with a view to determining whether these animals can be successfully bred in that vicinity. It is too early, as yet, to state positively that the experiment has been successful, but the deer proved to be fairly good travellers and have demonstrated their ability to maintain themselves during the winter upon the moss which covers a considerable part of sub-Arctic Canada. The depredations of wolves, the pest of flies and the probability that Indian hunters will fail to discriminate between domesticated reindeer and wild caribou are problems as yet unsolved. Should this experiment prove successful a profitable industry may be developed in breeding reindeer in districts where cattle cannot be profitably maintained.

Efforts have been made to locate the several herds of wood buffalo known to be roaming in the vicinity of Fort Smith. Reliable information has been obtained of the existence of at least three herds, comprising from 300 to 500 animals, but little definite information has been secured. Further efforts are being made to locate these herds with a view to protecting them from the depredations of wolves and Indian hunters and thus to preserve from extinction the last herd of wild buffalo known to exist on this continent, where they once roamed in countless thousands.

## IRRIGATION AND HYDROGRAPHIC SURVEYS.

The most prominent feature in connection with irrigation during the past year has been the rapid development of the large projects under construction by the Canadian Pacific Railway Company and the Southern Alberta Land Company. The former company has completed the works for the irrigation of the western third of its 3,000,000 acre tract near Calgary, and has applied to the government for an inspection of the system and the issue of a license for the use of water. The inspection is now under way and will, it is expected, be completed during the year. The works of the Southern Alberta Land Company are also approaching completion and will require similar inspection at an early date.

The rapid development of the West has resulted in increasing demands for water for domestic use in cities and towns and the procuring of such supply is one of the most important problems with which these growing municipalities are confronted.

The work of stream measurement, which was established upon a systematic basis some three years ago, has been extended as far as the limited appropriation would permit and the records obtained have proved of great value not only in determining the feasibility of irrigation projects, but, to an even greater extent, in connection with the development of water-power and the supply of water for domestic purposes in towns and cities. The published reports of the work have been widely circulated and it is evident from the demand for the reports and from the testimony of engineers and others that the work is appreciated by those who best know its worth.

## DOMINION PARKS.

During the year a separate branch was organized for the administration of the Dominion Parks with Mr. J. B. Harkin as commissioner. Mr. Howard Douglas remained the chief outside officer with the new title of Chief Superintendent of Parks.



STATEMENT showing Receipts on Account of Dominion Lands from July 1, 1872, to March 31, 1911.—*Concluded.*

xiv

DEPARTMENT OF THE INTERIOR

2 GEORGE V

Fiscal Year.	GRAZING LANDS.		HAY, COAL, MINING, STONE QUARRIES, EXPORT TAX ON GOLD, &c.		Canadian National Parks.	COLONIZATION LANDS.		Gross Revenue.	Refunds.	Net Revenue.
	Cash.	Scrip, &c.	Cash.	Scrip.		Cash.	Scrip.			
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1872-73.								26,239 45		26,239 45
1873-74.								29,980 80		29,980 80
1874-75.								27,641 15		27,641 15
1875-76.								8,865 94		8,865 94
1876-77.								140,755 02		140,755 02
1877-78.								139,584 40		139,584 40
1878-79.								234,732 93		234,732 93
1879-80.								206,801 37	4,636 08	202,165 29
1880-81.								206,990 54	5,038 22	201,952 32
1881-82.	2,245 00		40 00			354,036 17		1,805,734 87	10,687 55	1,795,047 32
1882-83.	22,844 43		913 91			248,492 01		1,051,408 60	8,746 05	1,042,657 55
1883-84.	11,370 60		640 90			253,713 40		1,001,776 67	9,220 50	992,556 17
1884-85.	17,089 75		815 63			1,214 22		451,564 65	12,070 85	439,493 80
1885-86.	29,562 51	3,131 08	1,284 83					457,973 95	63,309 12	394,584 83
1886-87.	14,242 77	39,487 67	1,570 40	80 00				588,532 80	19,543 16	568,989 64
1887-88.	5,922 47	23,023 28	2,273 73	80 00	2,951 58		10,000 00	569,986 68	6,277 66	563,709 02
1888-89.	2,207 69	16,902 63	3,946 55		2,528 73		16,000 00	594,088 04	5,226 23	588,861 81
1889-90.	1,305 57	9,021 63	9,242 08		1,694 37			462,536 26	8,209 74	454,326 52
1890-91.	3,079 55	16,193 77	8,628 44	160 00	2,397 35	5 28	4,460 50	460,990 76	7,195 27	453,795 49
1891-92.	3,726 80	17,222 60	5,616 85		3,648 45			452,151 08	15,291 39	436,859 69
1892-93.	6,380 80	11,542 39	6,266 13		4,983 23			392,324 43	18,314 97	374,009 46
1893-94.	5,740 79	7,687 86	6,243 15		2,523 92			250,069 12	4,544 01	245,525 11
1894-95.	5,353 72	8,628 00	5,229 54		2,321 87			202,983 10	4,365 99	198,617 11
1895-96.	7,071 86	6,255 90	5,813 51		2,734 82			227,694 93	8,368 79	219,326 14
1896-97.	4,715 01	2,500 00	8,518 18		2,132 11			206,853 57	15,010 54	191,843 03
1897-98.	4,728 58	510 39	699,334 76		3,045 65			1,009,741 63	4,678 55	1,005,063 08
1898-99.	5,245 88		1,130,371 60		2,994 16			1,584,328 32	32,296 39	1,552,031 93
1899-1900.	8,382 86	4,083 30	1,038,195 42	20 00	2,727 60			1,503,743 00	23,062 28	1,480,680 72
1900-1901.	4,726 28	14,671 99	1,101,808 33	20 00	4,047 31			1,874,159 09	18,368 85	1,855,790 24
1901-1902.	7,292 46	8,409 27	737,878 43		*2,861 13			1,432,679 25	27,165 55	1,405,513 70
1902-1903.	13,913 33	15,041 33	607,722 05		*5,063 69			1,890,886 83	21,519 84	1,869,366 99
1903-1904.	19,790 27	15,202 15	495,579 18		*9,198 48			1,681,824 70	36,721 75	1,645,102 95
1904-1905.	36,145 32	5,237 36	364,923 59		*14,059 55			1,339,382 35	25,786 90	1,313,595 45
1905-1906.	51,583 89	80 00	296,769 19		18,883 83			1,709,816 28	33,418 36	1,676,397 92
1906-1907 (nine months).	43,711 81	400 00	213,852 59		*15,887 42			1,490,508 31	35,112 48	1,455,395 83
1907-1908*	43,211 78	4,048 01	266,415 31		27,232 87					

\*Including Scrip.

## CIVIL SERVICE LIST

17

SESSIONAL PAPER No. 30.

## DEPARTMENT OF THE INTERIOR—INSIDE SERVICE

Name.	Division.	Title of Office.	Date of Present Appointment.	Salary.	Date of Birth.	Date of First Permanent Appointment.
				\$ cts.		
Cory, Wm. Wallace, C.M.G.		Deputy Minister...	1 Jan. '05	5,000 00	16 June '65	1 Jan. '05 *5 Jan. '01
Coté, Joseph Arthur	1-A.	Asst. Deputy Min..	1 Apr. '08	3,950 00	24 Nov. '62	1 Dec. '86 *23 Oct. '82
Gibson, Roy Alexander	2-A.	Clerk	1 Sept. '08	2,100 00	3 Oct. '84	1 Sept. '08 *10 Feb. '08
May, Miss Kathleen Maud Weir	2-B.	do	1 July '06	1,550 00	8 Feb. '63	1 May '91 *19 Oct. '83
Chandler, Henry	do	do	1 Sept. '08	1,050 00	28 Oct. '88	1 Sept. '08 *13 Aug. '06
MacKinnon, Miss Jean	3-B.	do	1 Sept. '08	800 00	2 Oct. '86	1 Sept. '08 *14 Feb. '07
Dixon, Miss Aimée	do	do	1 Sept. '08	750 00	14 Nov. '87	1 Sept. '08 *18 Nov. '07
Gibson, James Edward		Messenger	1 Apr. '11	500 00	23 Nov. '78	1 Apr. '11 *27 June '10
Featherston, Joseph Emerson	1-B.	Chief Clerk	1 Apr. '10	2,200 00	27 May '80	1 Sept. '08 27 Apr. '05
Forbes, Edward Stanley	2-B.	Private Secretary Clerk	1 Apr. '11 1 Apr. '10	600 00 1,250 00	2 Mar. '82	1 Apr. '10 *1 May '08
Shea, John James	do	do	1 Sept. '08	1,150 00	21 Aug. '75	1 Sept. '08 *6 June '03
Crawford, Miss Alice, Grace Evangeline	3-A.	do	6 Aug. '01	1,200 00	20 Feb. '72	6 Aug. '01 *6 Feb. '96
Williams, Miss Mabel Berta B.A.	do	do	20 Sept. '05	1,200 00	18 Feb. '78	1 July '04 *19 Jan. '01
Johnson, Miss Annie Edith	do	do	1 Apr. '10	950 00	8 Mar. '83	1 Sept. '08 *26 Oct. '06
Scott, Miss Mary McKay	do	do	1 Apr. '10	950 00	17 Aug. '51	1 July '04 *12 Jan. '00
Kennedy, Miss Mary Alison	do	do	1 Sept. '08	800 00	26 Oct. '84	1 Sept. '08 *14 Sept. '03
Boselly, Edward Bertritt		Messenger	1 Sept. '08	800 00	10 Apr. '36	1 Sept. '08 *9 June '08
Chartrand, Edouard Joseph		do	1 Apr. '11	500 00	4 Jan. '88	1 Apr. '11 *21 Mar. '11

## ACCOUNTS BRANCH

Beddoe, Charles Henry	1-A.	Superintending Accountant.	1 Sept. '08	3,100 00	17 Aug. '50	30 Apr. '83
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## Expenditure Division

Marchand, Pierre	1-B.	Assistant Accountant	1 July '07	2,300 00	25 Dec. '66	12 Dec. '99
Dunnet, James	2-A.	Clerk	1 Apr. '08	1,800 00	4 Feb. '47	1 July '79 *1 Apr. '78
Turner, Henry Hamish	do	do	31 Aug. '08	1,750 00	21 Sept. '49	1 Mar. '84 *20 June '83
Willoughby, Samuel John	do	do	1 Apr. '09	1,700 00	22 Mar. '65	1 Jan. '87 *12 Jan. '86
McIsaac, Ronald Angus Joseph, B.A.	2-B.	do	1 Apr. '07	1,500 00	24 June '74	1 July '01 *29 Apr. '01
Pinard, Alphonse	do	do	1 Sept. '08	1,250 00	29 Jan. '49	1 Sept. '08 *4 Mar. '07
Purcell, Denis Peter	do	do	1 Sept. '08	1,200 00	5 Feb. '71	1 Sept. '08 *6 Nov. '01
Anderson, John	do	do	1 Sept. '08	1,150 00	15 July '78	1 Sept. '08 *15 June '06
Fortier, Arthur	do	do	1 Sept. '08	1,150 00	14 Apr. '81	1 Sept. '08 *20 Aug. '08

\*Date of temporary appointment.

2 GEORGE V., A. 1912

## DEPARTMENT OF THE INTERIOR.—INSIDE SERVICE.

## DOMINION PARKS BRANCH.

Name.	Division.	Title of Office.	Date of Present Appointment.	Salary.	Date of Birth.	Date of First Permanent Appointment.
				\$ cts.		
Harkin, James Bernard...	1-A.	Commissioner.....	1 Apr. '11	2,800 00	30 Jan. '75	2 Dec. '01
Johnson Duncan William..	2-B.	Clerk.....	1 Sept. '08	1,250 00	7 Aug. '79	1 Sept. '08 *5 June '05
Byshe, Frederick Henry...	do	do .....	1 Apr. '11	1,200 00	16 Mar. '71	21 Dec. '04 *6 Feb. '93
Von Charles, Miss Fredericka Alexandra.	3-B.	do .....	1 Sept. '08	750 00	18 Mar. '76	1 Sept. '08 *18 May '08

## B.C. LANDS, TOWNSITES, ETC., BRANCH.

Maber, Samuel.....	1-A.	Chief of Branch....	1 Apr. '11	2,800 00	28 Jan. '77	1 Sept. '08 *11 July '00
Ashton, Arthur Ward, D.L.S. & B.C.L.S.	2-A.	Clerk.....	1 Apr. '11	1,600 00	5 Nov. '80	1 Sept. '08 *1 May '05
Wyld, Grier.....	2-B.	do .....	1 Sept. '08	1,450 00	28 Aug. '82	1 Sept. '08 *20 Nov. '06
Eastman, Ernest Roy...	3-A.	do .....	1 July '06	1,150 00	11 Sept. '73	1 July '06 *27 June '04
Wright, Miss Lillith Kathleen.	do	do .....	1 Apr. '11	900 00	24 Feb. '78	1 Sept. '08 *13 Mar. '01
Havley, Miss Olivia.....	3-B.	do .....	1 July '04	800 00	20 Apr. '78	1 July '04 * 8 Feb. '00
Barber, Miss Lily Jane...	do	do .....	18 June '10	500 00	24 June '86	18 June '10 *18 Mar. '10

\*Date of temporary appointment.

# DOMINION PARKS

## REPORT OF THE COMMISSIONER OF DOMINION PARKS.

DEPARTMENT OF THE INTERIOR,  
DOMINION PARKS BRANCH,  
OTTAWA, July 4, 1912.

W. W. CORY, Esq., C.M.G.,  
Deputy Minister of the Interior,  
Ottawa.

SIR,—I beg to submit a report for the fiscal year 1911-12, with respect to Dominion Parks.

During the year a change was made in the matter of parks administration. Prior thereto there was no distinctive parks administration. In addition to his many other duties the Superintendent of Forestry had to supervise the management of all parks matters. A recognition of the potentialities in connection with National Parks and the essential differences in the administrative requirements concerning National Parks and National Forest Reserves led to the detachment of the parks from the Forestry Branch and to the organization of a separate branch charged with the administration of parks alone.

It is interesting to note that the United States is following Canada's example in the matter of specializing in regard to National Parks administration. An agitation for the establishment of a Parks Bureau, at Washington, culminated in the following message to Congress from President Taft, on February 2, 1912:—

'I earnestly recommend the establishment of a Bureau of National Parks. Such legislation is essential to the proper management of those wondrous manifestations of nature, so startling and so beautiful that everyone recognizes the obligations of the Government to preserve them for the edification and recreation of the people. Every consideration of patriotism and the love of beauty and of nature and of art require us to expend money enough to bring all these natural wonders within easy reach of our people. The first step in that direction is the establishment of a bureau which shall take upon itself the burden of supervising the parks and of making recommendations as to the best method of improving their accessibility and usefulness.'

The re-organization of Dominion Parks administration followed the enactment in May, 1911, of the Dominion Forest Reserves and Parks Act. This Act repealed previous parks legislation and provided that the Governor General in Council might set aside suitable areas to be maintained and made use of 'as public parks and pleasure grounds for the benefit, advantage and enjoyment of the people of Canada.'

### CHANGED AREAS.

When the parks were re-arranged under the new Act some changes were made in the boundaries. The areas now administered by the Parks Branch are:—

3 GEORGE V., A. 1913

Park.	Area.	Former Area.
	Sq. Miles.	Sq. Miles.
Rocky Mountain.....	1,800	4,500
Yoho.....	560	823
Glacier.....	463	576
Jasper.....	1,000	5,000
Waterton Lake.....	13.5	54
Buffalo.....	162	162
Elk Island.....	16	16

It is understood that the principle on which the reductions were made was that the parks should not be of any larger area than the Department was in a position to reasonably improve and make available for the public. Since the change protests have been received against the reduction and the question is now under consideration as to whether the old areas should be restored or extensions of some kind made in the boundaries. The first protests arose in August when announcements were made in the newspapers that large numbers of white and Indian hunters proposed to take advantage of the removal of parks supervision from important game-breeding grounds to go into these areas and slaughter game by the wholesale. The branch took prompt action to prevent the proposed slaughter, however, with results that were eminently satisfactory.

#### PARKS ORGANIZATION.

The parks organization now is as follows:—

Head Office Branch at Ottawa in charge of an officer called the Commissioner of Dominion Parks.

*Outside service.*—A Chief Superintendent, located at Edmonton, charged with the supervision of all the parks' outside officers; and a separate organization in each park under a superintendent charged with the management of all matters concerning the park under his charge.

The re-organization involved the changing of the title of Mr. Howard Douglas from Commissioner to that of Chief Superintendent. The change in no way altered the duties performed by him, the new title being given because it was considered it more accurately described the duties of the office, viz.: the supervision of the work of the individual park superintendents.

#### ADVANTAGE OF NATIONAL PARKS.

In the words of the Parks Act the parks are 'for the benefit, advantage and enjoyment of the people of Canada.' To provide for a maximum development on these lines is the object towards which the parks organization is working.

The people of Canada primarily secure 'benefit, advantage and enjoyment' from their national parks, through the unequalled means of recreation that they provide. National parks are to the nation what local parks and playgrounds are to a city. Everything that a city park can do as a quick aid to the people, the national parks can do more thoroughly and on a larger scale. National parks are the natural result of a recognition that man requires the pure, wholesome, healthful recreation of the great out-of-doors. They provide for such on a scale commensurate with the needs of the people of Canada—present and future.

## SESSIONAL PAPER No. 25

## COMMERCIAL SIDE.

There is another way in which national parks prove advantageous to the people of Canada. They attract an enormous tourist traffic and tourist traffic is one of the largest and most satisfactory means of revenue a nation can have. The tourist leaves large sums of money in the country he visits, but takes away with him in return for it nothing that makes the nation poorer. He goes away with probably improved health, certainly with a recollection of enjoyment of unequalled wonders of mountain, forest, stream and sky, of vitalizing ozone and stimulating companionship with nature but of the natural wealth of the country he takes nothing.

The commercial potentialities of tourist traffic are almost startling. In 1907, an article, 'The Toll of the Tourist,' was published in the *American Review of Reviews*. This article gave the annual income of France from tourists as \$500,000,000, the tourist toll of Italy as \$100,000,000. It placed the expenditure of American tourists in England as \$25,000,000. During the past five years there has been a constantly increasing tourist traffic, so the above figures are probably much lower than the amounts now spent. Other figures which have been secured indicate that Switzerland's annual revenue from tourists last year was \$150,000,000.

In the United States it is well established that Florida gets a larger revenue from her tourists than from all the products of her soil. Hundreds of thousands annually visit Niagara Falls. Tourists spend six or seven million dollars each year in the Adirondacks and at least \$5,000,000 annually in the pine woods of Maine.

The President of the American Civic Federation in a speech in September last calculated that American tourists spent abroad in 1910 the enormous sum of \$350,000,000. On every hand there is evidence of a powerful and prevailing desire on the part of the people to see and commune with the beauties of nature, their willingness to pay for it and the pecuniary benefit of the locality concerned. Extraordinary scenery is one of the greatest assets a country can have. Canada has twenty Switzerland's in one. Maine's Adirondacks cannot be compared to Canada's national parks. There is now a powerful movement in the United States to 'See America First.' With the natural advantages Canada possesses in her national parks there appears to be no reason why she should not get a good share of the hundreds of millions of dollars that tourists annually spend.

The Parks Branch has to develop the national parks with the object of making their wonders and beauties available and accessible for the people of Canada. Every facility provided in that connection naturally is of equal value to the foreign tourist. Therefore the more the Branch can do in the parks to serve the recreation requirements of Canadians, the more it does at the same time to attract to Canada a share of the hundreds of millions that the public annually spends on recreation.

## PARKS POLICY.

The policy upon which the Branch is carrying on its development work is based on the belief that the majority of the people, Canadians or others, who visit the parks are used to some degree of comfort and that no matter how fond they may be of nature they will not take a park tour unless assured of some degree of comfort, convenience and safety. Americans and Canadians in thousands go to the Alps because they believe they can see them in comfort and yet they have never seen the much greater attractions of the Rockies.

To meet these conditions the Parks Branch policy necessarily relates to the quality of the service of whatever kind, rendered by those dealing with the tourist: character of accommodation; avoidance of congestion; protection against extortion; provision of minor attractions to fill in between the nature trips; the construction and maintenance of roads and trails of first-class character in order that the various attractions

3 GEORGE V., A. 1913

may be comfortably and safely reached; special care in the matter of the dust nuisance and the rough road nuisance; supervision over sanitary conditions; water supply, horses and vehicles, guides, drivers, charges and rates; furnishing of full and reliable information; and, generally, in not only reducing discomforts to a minimum but in so administering matters that the tourist shall be as satisfied with the treatment received while in the parks as he inevitably must be with the science wonders he has viewed. The efforts of the Branch are being directed towards an organization dealing effectively with respect to details concerning all these various matters.

#### DEVELOPMENT WORK.

Development work in the parks relates chiefly to roads, trails, streets, sewers, water works and bridges. On this account engineering supervision has been provided. There is an engineer on the Head Office staff and also an engineer in the field. The plan adopted in this connection, in relation to road construction, is that the engineer on the ground shall by careful survey work locate the route with a view to getting the best scenic results, safety, permanency and ease of maintenance. He must go fully into the matter of grade, drainage, curves, foundations and materials. He also has carefully to estimate costs. He reports to head office, where his details are examined by another engineer. Repairs of any extensive character are dealt with in the same way. In this matter of roads it is hoped in this way to make them all permanent, smooth, dustless, mudless, safe and altogether attractive.

The general policy regarding other construction matters is similar to that in relation to roads.

#### WORK OF 1912-13.

For the year 1912-13 it is proposed to confine attention in the matter of roads and trails almost exclusively to perfecting as far as possible those already constructed. Very little new work is contemplated. In the matter of new work it is felt that best results can be obtained by working out a comprehensive plan of development covering each park in its entirety and then progressively carrying out such plan; each unit of work eventually forming a link in a comprehensive whole.

With a view to securing roads of the best possible character the department has purchased an eight-ton steam roller, a rock crusher, and a concrete mixer. Moreover, a reservation of tar-sand (asphalt) area in the Fort McMurray country has been made for parks purposes. It is expected a railway will be completed to Fort McMurray within two or three years and that the department will then be able to asphalt its park roads at a comparatively small cost.

#### CONSERVATION WORK.

Of equal importance with construction and development work in the parks is the work of conservation. This applies to the natural beauties and scenic wonders, to the forests, animal, fish and bird life. This work is carried on by a staff of game wardens who patrol the parks from end to end. Fire is, of course, the most serious menace. Very good results have been obtained from the system of fire patrol and protection in operation for several years. However, the practice of the branch is to keep in touch with the forestry branch experts for advice and suggestion and also to co-operate with the forestry officials with a view to getting the best possible results. Plans in regard to fire protection are being developed not only on the lines of patrolling, but also in the matter of a comprehensive trail system, telephone lines, signal stations, depots with stores for emergencies, organization of men, pack horses and equipment available at all times for emergencies; construction of fire guards; disposal and removal of dead timber.



## SESSIONAL PAPER No. 25

## FINANCIAL ADMINISTRATION.

Careful attention has been given to organization in regard to the financial end of the work. The object has been to provide a system whereby a maximum of value and results is secured with respect to every expenditure made; and whereby revenue potentialities are developed with a view to eventually making the parks self-sustaining.

In the matter of expenditure the system developed controls first with regard to the initiation of work and then provides by a variety of inspections and reports from different officers a close check upon the work, enabling head office when approving of the accounts for payment to calculate whether the amount of work done represents an adequate result for the money concerned. In the matter of the purchase of ordinary supplies the system adopted provides that no accounts can be paid unless accompanied by a requisition bearing the signature of the foreman or other employee requiring the supplies, the approval of the superintendent of the park and the receipt of the person to whom delivery was made. A store organization has also been provided for under which, by means of requisitions and receipts, individual responsibility is established with respect to every tool, implement or other article owned by the department. Finally all accounts of whatever nature are audited first in the chief superintendent's office and again by the accountant of the branch.

## REVENUE.

The revenue collected in the various parks in 1911-12 was as follows:—

Collected by Parks Branch . . . . .	\$27,701 38
“ Mining Lands Branch . . . . .	58,561 67
“ Timber and Grazing Branch . . . . .	7,434 94
	<hr/>
	\$93,697 99

In some cases these dues are on berths partly within the parks and partly outside. There is no way by which the part actually collected within the parks can be fixed.

A new source of revenue was a royalty on ice cut within the park during the past winter. The rate was two cents per ton and the revenue totalled \$430.62.

A vigorous policy of collection of arrears of lot rentals in the parks was inaugurated last fall. As a result nearly \$900 arrears have been collected out of a total of \$1,075 dealt with. In addition, seven cases of arrears had to be submitted to the Department of Justice, totalling \$407. That department has secured the cancellation of the leases concerned and is now suing for the recovery of the money.

Careful investigation is being carried on with regard to sewer, water and other rates to ascertain that all the revenue due the department is collected. Moreover, it is expected a substantial revenue may be secured by the disposal of old buffalo in the herd at the park at Wainwright. Natural conditions require that a certain number of old buffalo bulls should be disposed of each year. As soon as a buffalo bull becomes aged and somewhat enfeebled the younger bulls drive him out of the herd and eventually kill him. When they do kill him they so lacerate the remains that head, robe and hide are destroyed. A prime bull will yield in the way of revenue approximately:

Head (mounted at cost of \$150) . . . . .	\$500 to \$800.
Robe . . . . .	100
Meat . . . . .	50 to 100.

There are a large number of aged bulls in the government herd and a substantial revenue should therefore be derived therefrom. Attention is also being given to the question of revenue from wild fur-bearing animals within the parks. Ontario now

3 GEORGE V., A. 1913

derives a large revenue from its wild animals in Algonquin Park and it is felt that a similar result may be obtained in the Dominion parks.

Taking the parks as a whole there is every reason to look forward to a return in direct revenue equivalent to a good rate of interest on the capital spent upon the parks; and, indeed, the capital expenditure may eventually be found to be equalled by the direct revenue.

The details of the work accomplished during the year are dealt with in the reports of the Chief Superintendent and of the Superintendents of the various parks which follow. There are a number of matters of general interest which, however, call for special attention.

#### SCHOOL LANDS IN PARKS.

During the year the question arose as to whether the school lands provisions of the Dominion Lands Act applied to the parks. The matter was submitted to the Department of Justice and an opinion received from it that the provisions in question do not apply.

#### FIDDLE CREEK DRIVE.

A contour survey of the district between Athabaska river and Fiddle Creek hot springs, Jasper park, was commenced last summer and will be completed during 1912. This is being made with a view to securing the best possible location for a carriage road to the hot springs. The country is a most rugged and difficult one and it is expected that when the road is completed it will provide one of the most spectacular scenic drives on the continent.

#### AUTOMOBILE ROAD.

Work was commenced in the early spring on a bridge across the Bow river, Rocky Mountains Park, at Castle and on a roadway from that point to the British Columbia boundary in Vermilion Pass. This road is a link in an automobile road scheme in which the Canadian Pacific Railway, the Government of British Columbia and the Dominion Government are jointly interested. The scheme involves the completion of an automobile road from Calgary to Vancouver. The Dominion is building that portion of the roads through the parks and the railway company and the province are responsible for the balance. The Dominion has already built sufficient roadway to enable automobiles to travel from Calgary to Banff, and several miles beyond. Work is to be proceeded with during 1912 from the present terminus to Castle. This will connect with the other portion of parks road from Castle to Vermilion and there join the British Columbia-Canadian Pacific Railway portion of the road. From the Vermilion Pass the road is located via the Windermere lakes to Wardner, on the Crowsnest line. From this point the road, by linking up with existing roads, will reach Vancouver. Going eastward it will proceed via the Crowsnest to Lethbridge. Thus in a short time, not only will it be possible to go to Calgary and other points east to Vancouver by auto but there will also be provided a round trip—Calgary to Banff, to Castle, to Vermilion, to Wardner, to Lethbridge, to Calgary—of 500 miles during which the autoist will at all times be either in the Rockies or in full sight of them.

#### POWER DEVELOPMENT.

During the year permission was given the Calgary Power Company to build a conservation dam at the outlet of Lake Minnewanka, Rocky Mountains Park. Elaborate provisions were incorporated in the agreement adequately to protect parks interests. One provision required the removal close to the ground and the destruc-

## SESSIONAL PAPER No. 25

tion of all timber along the lake within the area to be flooded and for a distance of 10 feet above thereof. The consequence has been the removal of large quantities of dead timber which constituted an eyesore and the substitution of trim, clean cut shores. However, perhaps the most important feature of the arrangement was a provision that the company must make provision in the dam by which the department may carry out a power development of its own. An abundance of electric lighting for Banff, especially during the tourist season, is of the utmost importance, and advantage was taken of the conservation scheme to provide for a development which will give the Department 800 to 1,000 horse-power.

## NEW BATH HOUSE.

One of the outstanding attractions at Banff is the Hot Springs. The present facilities for bathing both at the Upper Hot Springs and at the Cave and Basin have become quite inadequate. The revenue from the Springs last year was \$4,808.75 and it would have been much larger had the Department been able to accommodate all who wished to use the baths. During the summer Mr. A. Van Damme, the foremost bath house architect in the United States, was authorized to prepare plans for two new bath houses. Mr. Van Damme spent some time at Banff and in September submitted preliminary plans. It was too late in the year to proceed with any building operations but an appropriation has been made for 1912-13 for bath house construction and it is expected that while the plans before the Department may be too elaborate for present purposes, at least one new bath house will be built during the fiscal year.

At Buffalo Park, Wainwright, the Department has purchased an equipment of horses and implements with a view to doing its own work in the matter of ploughing fire guards and providing hay for the buffalo. The cost of this work during 1911-12 was about \$3,000 and higher in other years. The cost of the outfit necessary to undertake it ourselves was approximately \$5,000. In the past great difficulty was always experienced in hiring teams and otherwise arranging for this important work. All this trouble will now be obviated and it is calculated that in a few years the Department will have saved the cost of the equipment purchased.

I have the honour to be, sir,

Your obedient servant,

J. B. HARKIN,

*Commissioner of Dominion Parks.*

3 GEORGE V., A. 1913

## DEPARTMENT OF THE INTERIOR.—INSIDE SERVICE.

## DOMINION PARKS BRANCH.

Name.	Division	Title of Office.	Date of Present Appointment.	Salary.	Date of Birth.	Date of First Permanent Appointment.
				\$ cts.		
Harkin, James Bernard.....	1-A.	Commissioner.....	1 Apr. '11	2,900 00	30 Jan. '75	2 Dec. '01
Byshe, Frederick Henry...	2-A.	Clerk.....	1 Apr. '12	1,600 00	16 Mar. '71	21 Dec. '04
Williamson, Frank Hedworth Hamilton.	2-B.	" .....	1 Sept. '08	1,400 00	15 Mar. '83	*6 Feb. '03
Graham, Maxwell Henry...	"	" .....	1 Sept. '08	1,300 00	15 Feb. '72	1 Sept. '08
Johnson, Duncan William..	"	" .....	1 Sept. '08	1,300 00	7 Aug. '79	*15 Apr. '07
Courtice, William Henry...	"	" .....	1 Sept. '08	1,100 00	22 Apr. '88	1 Sept. '08
Williams, Miss Mabel Bertha, B.A.	3-A.	" .....	20 Sept. '05	1,200 00	18 Feb. '78	*1 Oct. '06
Von Charles, Miss Fredericka Alexandra.	3-B.	" .....	1 Sept. '08	800 00	18 Mar. '76	1 Sept. '08
Kennedy, Miss Mary Alison	"	" .....	1 Sept. '08	800 00	26 Oct. '84	*5 June '05
Hoad, William Furness.....		Messenger.....	23 June '10	550 00	13 Dec. '74	1 Sept. '08
						*1 July '08
						*1 July '04
						*19 Jan. '01
						1 Sept. '08
						*18 May '08
						1 Sept. '08
						*14 Sept. '03
						23 June '10

## B.C. LANDS, TOWNSITES, ETC., BRANCH.

Maber, Samuel.....	1-A.	Chief of Branch.....	1 Apr. '11	2,900 00	28 Jan. '77	1 Sept. '08
†Ashton, Arthur Ward, D.L.S. & B.C.L.S.	2-A.	Clerk.....	1 Apr. '11	1,650 00	5 Nov. '80	*11 July '00
Wyld, Grier.....	2-B.	" .....	1 Sept. '08	1,500 00	28 Aug. '82	1 Sept. '08
Eastman, Ernest Roy.....	"	" .....	1 July '11	1,200 00	11 Sept. '73	*1 May '05
Wright, Miss Lillith Kathleen.	3-A.	" .....	1 Apr. '11	950 00	24 Feb. '78	1 Sept. '08
Hawley, Miss Olivia.....	3-B.	" .....	1 July '04	800 00	20 Apr. '78	*20 Nov. '06
Barber, Miss Lily Jane.....	"	" .....	18 June '10	550 00	24 June '86	1 July '06
						*27 June '04
						1 Sept. '08
						*13 Mar. '01
						1 July '04
						*8 Feb. '00
						18 June '10
						*18 Mar. '10

## WATER POWER BRANCH.

Challies, John Bow, B.A. C.E.	1-B.	Superintendent.....	1 Apr. '11	2,200 00	23 Apr. '82	1 Sept. '08
Norrish, Bernard Esterbrook, M. Sc.	2-A.	Engineer.....	1 Apr. '11	1,650 00	2 Feb. '85	*16 May '03
Stronach, Robert Summers	2-B.	Draughtsman.....	1 Sept. '08	1,300 00	19 May '82	1 Sept. '08
Beale, Alfred Martin, B. Sc.	"	Clerk.....	1 Sept. '08	1,200 00	6 Aug. '84	*27 Apr. '08
McIlmoyle, Miss Clemena Jane.	3-A.	" .....	1 Apr. '11	950 00	31 Dec. '73	1 Sept. '08
Grant, Miss Isabella May..	3-B.	" .....	21 June '11	500 00	10 Oct. '89	*21 Apr. '08
						1 Sept. '08
						*11 Nov. '07
						21 June '11

\*Date of temporary appointment.

†Since resigned.

## REPORT OF THE COMMISSIONER OF DOMINION PARKS.

DOMINION PARKS BRANCH,  
OTTAWA, September 30, 1913.

W. W. CORY, Esq., C.M.G.,  
Deputy Minister of the Interior.

SIR,—I beg to submit my second annual report as Commissioner of Dominion Parks, covering the fiscal year 1912-13. Appended to it are reports from the Chief Superintendent of Dominion Parks and from the Superintendents of the various Parks. These reports show in detail the substantial progress made during the year in the matter of development work. My own report, therefore, is confined largely to a statement concerning the purposes served by National Parks and the useful development work that such purposes suggest.

## CANADA'S PARKS.

Extract from an address delivered at Ottawa, March 12, 1913, by His Royal Highness the Duke of Connaught, before the Canadian Association for the Prevention of Tuberculosis:—

'I feel that some apology is necessary for referring to the subject on which I now desire to touch, but the fact that this is the last opportunity I shall have for public speaking before I go to England on leave must be my excuse. Also, the subject is allied with public health, which is one more reason for me to request your indulgence.

'I desire to refer shortly to the question of your Dominion Parks. I do not think that Canada realizes what an asset the nation possesses in the parks. These areas have been preserved from the vandal hand of the builder for the use and enjoyment of the public, who may take their holidays there and keep close to nature under the most comfortable conditions, assessing a store of health which will make them the better able to cope with the strenuous life to which they return after their vacation.

'When deciding on where to take their holidays, Canadians might well consider the claims of places within their own frontier, and spend their money in the Dominion instead of carrying it away to swell the millions annually spent in Maine, in Florida, and in California. For I do not believe that any place presents natural attractions greater than those of the Parks of Banff, Glacier and Jasper. The time may come when it will be found desirable to establish a national sanatorium at or near one of these reserves, and this would interest your Association directly in the success of the Parks.'

## COMMERCIAL SIDE OF PARKS.

In my report last year I called attention to the commercial side of National Parks. I pointed out that each year hundreds of millions of dollars were spent by tourists in France, Switzerland, Italy and other Old World countries; that hundreds of millions of dollars were also spent annually on this continent by tourists. The figures indicated that Canada—with incomparable scenic attractions—can reasonably

4 GEORGE V., A. 1914

expect an annual revenue from the tourist traffic which will bulk far into the millions, and justify the expenditure of large sums of public money upon development work to render its scenic attractions easily, comfortably and safely accessible.

That this aspect of National Parks being valuable as a commercial asset is recognized in countries where these national playgrounds are not matters of recent development is shown by the attention given to the nursing of tourist traffic in such countries as Switzerland, France, Italy, Germany and elsewhere on the continent of Europe, where facilities and comforts are lavishly provided to attract and encourage tourists from all over the world.

The potentialities of the field even for countries already garnering millions each year from the tourists is indicated by the following item published last winter in the newspapers:—

*'Department for Tourists.*

'Rowe, January 18, 1913.—A State Tourist Department is advocated by Signor Feraris, one of the most prominent members of the Chamber of Deputies, as the easiest means of increasing Italy's wealth. The state revenue benefits considerably from the present tourist traffic in the matter of customs, railway tickets and entrance fees to museums and galleries.

'Signor Feraris has in view the doubling of the present tourist revenue, and advocates direct intervention of the state to promote tourist traffic.

"The industry of the Foreigner" he says, "has been sadly neglected by the State. Italy's many advantages are not sufficiently advertised, and while the efforts of the hotelkeepers and others are praiseworthy, they lack the support of the Government." Therefore he wants sufficient backing for his boom.

'Italy's increased political importance has rendered unanimous reforms indispensable, and also an improvement of the sanitary conditions of the workmen. To pay for this he suggests the establishment of a State Tourist Department, with agents throughout the world, who will urge foreigners to visit Italy and spend their money.

'Signor Feraris has the support of a number of powerful institutions and may succeed in his scheme.'

CANADIAN TRAVEL ASSOCIATION.

It is significant that an association has been organized in Canada during the present year for the purpose of promoting tourist traffic in the Dominion. It is called the Canadian National Travel and Immigration Association, and publishes a magazine *Travel in Canada*. The initial number of the magazine points out that already over three million tourists from the United States annually visit Canada. It submits statements indicating that foreign tourists spend over \$2,000,000 each year in Montreal, that even a larger sum is spent in Toronto annually, and that Winnipeg, Vancouver, and other Canadian cities reap, each year, a harvest of over a million dollars each from foreign travellers.

VALUE OF AUTOMOBILE ROADS.

In connection with the commercial side of National Parks, automobile traffic appears to provide a means of immensely increasing the revenue to be derived by the people of Canada from the tourist. The Parks Branch is shaping its development work on lines calculated to make the unrivalled scenery of the Rockies accessible to automobile traffic. Consideration of the expansion of recent years with respect to motors and motoring cannot fail to convince one that adequate trunk roads through the mountains will inevitably mean a huge automobile traffic, and consequently a

## SESSIONAL PAPER No. 25

large expenditure of money by the autoists. Statistics indicate that in the United States alone there are about a million motor cars—a car for every hundred of population.

It is a well established fact that most motorists spend their holidays in their cars. Many facilities already exist which will bring the motorist to the foot-hills of the Rockies. What motorist will be able to resist the call of the Canadian Rockies when it is known that he can go through them on first-class motor roads. And what a revenue this country will obtain when thousands of automobiles are traversing the Parks.

## THE CHIEF PURPOSE OF PARKS.

However, the commercial side of National Parks is only an incident, though indeed a very important one. National Parks exist primarily to serve the needs of the Dominion's own people.

National Parks are in reality national recreation grounds. They are set aside because it is being recognized more and more that recreation where fresh air, sunshine, beautiful natural scenery are combined, means an uplifting of spirit, a renewal of strength of body, a stimulation of mind. National Parks provide the means of recreation in the great out-of-doors for all who wish to take advantage of them; they stand out as a national recognition that recreation in the out-of-doors is essential for the physical, mental, moral health of the people, and consequently emphasize to the public the suggestion of such recreation, even if it has to be sought elsewhere than in the National Parks. The spirit of the National Park idea cannot be more effectively crystallized than by the following extract from John Muir, the American writer, known throughout the continent as the lover of the mountain, the wilderness and all nature:—

'The tendency nowadays to wander in wilderness is delightful to see. Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity and that mountain parks and reservations are useful, not only as fountains of timber and irrigating rivers, but as fountains of life. Awakening from the stupefying effects of the vice of over-industry and the deadly apathy of luxury, they are trying as best they can to mix and enrich their own little outgoings with those of nature, and to get rid of rust and disease.'

## EDUCATIONAL INFLUENCE.

A presentation of the influence of parks—of the influence of nature—upon the individual is made by Chas. Mulford Robinson, author of 'Modern Civic Art,' in the following words:—

'Education gained from the parks is that which makes for broader public sympathies and wider interests, for finer appreciation of the good things of life; it is that education which opens the public's eyes to the beauty that surrounds them, which makes us less of the animal and more of the man, richer through development of the resources within ourselves. The song of a bird, the scent of a flower, the glory of a sunset sky, are parts of our common heritage. The sense impression that they make is dependent only on ability to perceive and faculty to enjoy; and this ability and this faculty are susceptible of education. If the park can cultivate these in large numbers of people, as an incident of its service as a public pleasure ground, it will bestow great benefit; it will vastly increase its usefulness to the community; it will not only heighten the enjoyment of its own attractions, but it will put into the hearts



4 GEORGE V., A. 1914

and minds a faculty of enjoyment that will be of service in daily life. To such extent the investment which has been made in parks will be paying daily dividends on the common stock of human experience.'

The name park appears to create some confusion in the public mind in regard to National Parks. The quotation from Muir suggests the difference between parks as ordinarily understood and National Parks. The city park is a breathing space which the public demand as a necessity for their well-being, but for the most part it is artificial in appearance and small in area. The national park on the other hand is huge in area and in reality is a wilderness in its natural state. A city breathing spot can in a small way provide refreshment of mind and body, but adequate relaxation and recuperation realized only from the influence of nature—the nature of the wilderness.

#### SIGNIFICANCE OF PARKS.

The significance of National Parks is perhaps best illustrated by a comparison with city parks. Cities everywhere are multiplying their civic parks. This is done in response to an insistent public demand. The city tax-payers pay for these parks because they feel such recreation facilities pay them ample dividends in humanity by promoting the health and happiness of the people. The ultra-wealthy in a city can and do have their own private grounds or parks, but the masses can enjoy fresh air and the beauties of nature only in the public parks. But the masses cannot live in city parks, they cannot camp in them, fish in them, study nature in its wild state in them. As yet in Canada the people for the most part can reach, without great difficulty, many places where nature is still in its wild state, but Europe and the United States teach the lesson that time will soon change this unless precautions are taken now.

#### NECESSITY OF RESERVATIONS.

The necessity of National Park areas being set aside is emphasized by a review of conditions in other countries. Take the United States, a country very little older than Canada. In 1892 the following petition was addressed to the State Legislature of Massachusetts:—

'The undersigned petitioners respectfully represent that the seashores, the river banks, the mountain tops, and almost all the finest parts of the natural scenery of Massachusetts are possessed by private persons, whose private interests often dictate the destruction of said scenery or the exclusion of the public from the enjoyment thereof. In the opinion of the undersigned, the scenes of natural beauty to which the people of the Commonwealth are to-day of right entitled to resort to for pleasure and refreshment are both too few in number and too small in area; and therefore, respectfully ask that an inquiry be instituted for the purpose of ascertaining what action, if any, may be advisable in the circumstances.'

An investigation followed, and the facts brought out are most significant. The agent appointed to investigate, to quote his own words, 'found everywhere recent changes in the ownership of land, and a movement of people of means from the cities and the interior of the county to the shore regions of the states. I found leagues and leagues together of the shore line to be all private holdings, without the intervention, in these long reaches, of a rod of space on the shore on which the public had a right to go. I walked across the domain of one man who owns about six miles of shore line. I found a great population inland hedged away from the beach, and all conditions pointing to a time, not remote, when nobody can walk by the ocean in Massachusetts without payment of a fee, as we formerly had to pay for a glimpse of Niagara. I

## SESSIONAL PAPER No. 25

could see that the movement for more open spaces of public resort—for use and enjoyment of the people—has most vital relations to civilization, and that it has been instituted in response to a pressing need.'

## AMBASSADOR BRYCE'S TESTIMONY.

Ambassador Bryce, in an address on National Parks, at a meeting of the American Civic Association in Baltimore, November 20, 1912, said in part:—

'Europe is a populous, overcrowded continent; you will some day be a populous and ultimately perhaps even an overcrowded continent, and it is well to take thought at once, before the overcrowding comes on, as to how you will deal with the difficulties which we have had to deal with in Europe, so that you may learn as much as possible from our experience, and not find too late that the beauty and solitude of nature have been snatched from you by private individuals.

'Now let us remember that the quantity of natural beauty in the world, the number of spots calculated to give enjoyment in the highest forms, are limited, and are being constantly encroached upon. We, in England and Scotland, have lost some of the most beautiful scenery we possess, because it is has been taken into private estates. A great deal of the finest scenery in Scotland is now practically unapproachable by the pedestrian or artist or naturalist because people have appropriated it to their private purposes and keep the people out.

'I beg you to consider that, although your country is vast and has scope of natural beauty far greater than we can boast in little countries like England, or Scotland, even your scenery is not inexhaustible, and with your great population and the growing desire to enjoy the beauties of nature you have not any more than you need.'

While Ambassador Bryce's words were addressed to Americans, it is obvious that they apply with equal force to Canadians. In this connection it may be added that Mr. Bryce, in the course of an address before the Canadian Club of Ottawa, spoke as follows:—

'I know that you have been doing that in Canada (establishing national parks) and I hope that if you need any further encouragement to do it, you will find it in the example of the Australians, and that you too will set apart more and more of those magnificent areas of scenery which you possess in the Rocky mountains for the enjoyment of the people, looking forward to a day when the population of Canada will be tenfold what it is now and when the value of places where the pleasures of nature can be cultivated, and where the wild animals can be preserved, and where the charm of solitude can be enjoyed—when the value of all these things will be even greater than it is at this moment.'

## OBJECT LESSONS.

To emphasize the lesson to be learned from the United States the following quotations from John Muir are given:—

'Only thirty years ago, the great Central Valley of California, five hundred miles long and fifty miles wide, was one bed of golden and purple flowers. Now it is ploughed and pastured out of existence, gone forever—scarce a memory of it left in fence corners and along the bluffs of the streams. The gardens of the Sierra also, and the noble forests in both the reserved and unreserved portions are sadly hacked and trampled, notwithstanding the ruggedness of the topography—all excepting those of the parks guarded by a few

4 GEORGE V., A. 1914

soldiers. In the noblest forests of the world, the ground, once divinely beautiful, is desolate and repulsive, like a face ravaged by disease. This is true also of many other Pacific Coast and Rocky Mountain valleys and forests. The same fate, sooner or later, is awaiting them all, unless awakening public opinion comes forward to stop it.

'Most of the wild plant wealth of the East also has vanished—gone into dusty history. Only vestiges of its glorious prairie and woodland wealth remain to bless humanity in boggy, rocky, unploughable places.'

National Parks, moreover, have a real patriotic mission. One side of this was touched upon by J. Horace McFarland, president of the American Civic Federation, in the course of an address upon the subject 'Are National Parks worth while?' His remarks, of course, referred to American parks but change the word 'American' to 'Canadian,' and the concluding portion of his address crystalizes a thought of equal application to Canada. He said:—

'Consider what it is that inspires us as we sing the National hymn. Is it our wonder of mining, showing in the hideous ore dumps the sordid mining village? Is it in the burned-over waste that has followed the cutting of much of our forest wealth? Is it the power house in which is harnessed the beauty of Niagara? Is it the smoking factory chimneys, the houses of the grimy mill town, the malodorous wharfs along the navigable rivers. Is it even the lofty metropolitan sky scraper, or the great transcontinental steel highway?

'No, not one of these produces patriotism. Listen to the most sordid materialist who is American in birth or residence, as he boasts: it is always of the beauty of his town, his state, his country. Our devotion to the flag begins in that love of country which its beauty has begotten; it may end, at the last supreme test, in the beauty of soul that makes the patriot ready to die for his country in battle—if just battle there may ever again be.

'So I hold that in stimulating and safeguarding the essential virtue of patriotism, the beauty of the American park stands forth as most of all worth while.'

#### WORTH-WHILE PARKS.

In its parks and, for that matter, outside its parks, Canada has the impressive scenery and the other natural attractions to justify and compel pride of country. Most of the Dominion Parks so far established are in the Rocky mountains. To show that their outstanding charm and attractiveness are recognized by those whom the world recognizes as having the right to speak with authority upon the subject of mountains and scenic attractions, the following extracts are given:—

The Reverend James Outram, a well-known English climber, and author of 'The Heart of the Canadian Rockies':—

'But the wondrous glacial fields, the massing of majestic ranges, the striking individuality of each great peak, the forest areas, green pasture lands, clear lake and peaceful valley are nowhere found harmoniously blended on the western continent until the traveller visits that section of the Rocky mountains which lies within the wide domain of Canada.'

Extract from 'Climbs and Explorations in the Canadian Rockies,' by Prof. J. Norman Collie and H. E. M. Stutfield, of London, England, pioneer climbers and explorers:—

'On the other hand, they have a very remarkable individuality and character in addition to special beauties of their own which Switzerland cannot rival. The picturesque landscapes in the valleys; the magnificence of

## SESSIONAL PAPER No. 25

the vast forests, with their inextricable tangle of luxuriant undergrowth, and the wreck and ruin of the fallen tree-trunks; the size, number and exquisite colouring of the mountain lakes; in these things the new Switzerland stands pre-eminent. In the Alps we can recall only one lake of any size surrounded by high glacier-clad mountains, namely, the Oeschinen See; in the Rockies, they may be counted by the score—gems of purest turquoise blue, in matchless settings of crag and forest scenery, glacier and snow, storm-riven peak, and gloomy, mysterious canyon.'

W. D. Wilcox, the American author, who was one of the first to explore the Mount Assiniboine district, says in his charmingly illustrated book, 'The Rockies of Canada':—

'It is becoming more and more apparent every year that this part of the Rockies is not only a great field for Alpine climbing in its strictest meaning, but undoubtedly the most extensive and interesting field presented by any readily accessible range in the world. That such men as Collie, Stutfield, Woolley, and Whymper have come over from England several seasons to climb here, that the Appalachian Mountain Club, represented by Abbot (who lost his life on Mount Lefroy), Fay, Weed, Thompson, and others, and expert climbers such as Outram and Eggers have found climbs that tested their powers to the utmost, or repelled all attacks, even under the leadership of expert Swiss guides, tells much about the real nature of the climbing.'

T. G. Longstaff, the distinguished English alpinist, in an article in the *London Field* recently, said:—

'In the Canadian Rockies and the Selkirks there is a country waiting for recognition which I believe is destined to become the playground of the world, just as the Alps have been for one short century the playground of Europe. In no other mountain region of the globe do peak and cliff, snowfield and glacier, alpland and forest, lake, cataract, and stream form such a perfect combination as is to be found, not in one, but in hundreds of places in these glorious ranges. Mere questions of altitude are beside the mark. Though I hold that no one can fully appreciate mountain scenery who has not actually come to grips with the peaks themselves, yet the fascination of the Canadian mountains is such that merely to travel through them and camp amongst them is sufficient reward for any one who is not blind. On the whole it must be admitted that the average difficulty of the climbing does not attain the European standard, but there are many peaks whose ascent has only been accomplished with great difficulty, and there are certainly a far larger number of such peaks which have never been seen by any mountaineer.'

Prof. Coleman, of Toronto University, author of 'The Canadian Rockies,' and ex-president of the Canadian Alpine Club, says:—

'None of the mountains of North America can be measured against the Himalayas or the higher Andes in altitude, and to climbers familiar with these giant peaks the Canadian Rockies may seem quite insignificant; and yet some of the most famous workers among the Himalayas, the Andes, the Caucasus, the Alps, have later become so enamoured of the Canadian Rockies as to come back season after season. To draw experienced British climbers from the French or Swiss Alps, only a few hours' journey from home, to Banff or Laggan or Glacier, five thousand miles away, implies rather potent charm.

'Much the same is true of the skilful American climbers, who flock to British Columbia instead of spending their summers a few hundred miles to the south among the mountains of Colorado, which are thousands of feet

4 GEORGE V., A. 1914

higher. Why should the Canadian Rockies prove more fascinating than Pike's Peak or Mount Whitney? It is evident that the cause is not to be found in altitude alone.

'The beauty and attractiveness of mountains depend, of course, on various factors, of which absolute height is only one. Relative height above the surrounding plains or valleys counts for more, and permanent snowfields and glaciers are needed to give the true Alpine charm and these may be found on peaks of only nine thousand feet among the Selkirks. . . . On the other hand, the much higher mountains of Colorado rise from a plain seven thousand feet above the sea and have so feeble a snowfall that they are bare before the end of the summer.

'Except in the short extension of the Canadian Rockies into Washington and Montana, there are scarcely any glaciers to be found south of the international boundary. The dryness of the air and the strong and more nearly vertical sun of summer prevent the formation of glaciers on most of the high American mountains and on all those of Mexico, robbing them of the most thrilling and seductive features of the Alpine peaks, the gleam of snow, the blue of crevassed glacier tongues, the wildly heaped moraines, and the white glacial torrents in flood on a sunny afternoon.

'The famous canyon of the Colorado three hundred miles long and five thousand feet in depth, with a breadth of ten or fifteen miles, is out of the running as compared with the valley of the Upper Columbia at Surprise rapids, which is more than eight thousand feet below the nearer Rockies and Selkirks, the opposite summits standing fifteen or twenty miles apart. Probably five times as many cubic miles of rock have been carved from this valley and disposed of as in the Colorado canyon.'

#### NEW LINES OF DEVELOPMENT.

A study of the mission of National Parks has suggested many new lines of development. If recreational facilities are important for a nation, it is obvious such facilities should be made available for all the people.

At present most of Canada's national recreation grounds are in the west. Geography places them beyond the reach of thousands in the East. Canada's rapidly-growing cities in the East have two great needs—playgrounds in the cities and resorts in the country where the people, especially the poorer children, can have summer outings. The establishment of city playgrounds is in general a matter for the cities to deal with. But much advantage would follow if the services of some properly qualified Government officer were available for any city taking up the playgrounds movement, to help on the work by way of suggestion, advice, direction.

'The present need,' says a magazine article on the playgrounds movement in Canada, 'is a national basis on which to rest the playgrounds superstructure. Some the playgrounds are under church control; some are special associations' peculiar enterprises; some are municipal concerns; school boards run others. There is no entirely, no common headquarters, no possible way of making concerted progress, as things exist. Developments are therefore more or less haphazard.'

It is suggested that a specially qualified officer should be associated with the Parks organization to carry out the obvious duties in this connection.

#### FOR CITY NEEDS.

The Parks organization can properly assist the playgrounds movement as indicated because the purpose of the Parks organization is to provide for adequate recreation for the people, but it has, in the matter of camp sites or recreation resorts near the large centres of population, a much more important duty.

## SESSIONAL PAPER No. 25

Apart altogether from the consideration that certain districts, notable for their scenic attractions, should be reserved for posterity from the hand of the vandal and speculator, it seems that for the National Parks to serve their highest function they should be places of rest and recreation for those in Canada most needing their revivifying influences; that is, for the city toilers.

Modern life tendencies are more and more towards the cities and towns; in Canada, during the last ten years, there has been an increase in the rural population of 16.48 per cent and in the urban of 63.83 per cent.

As the years progress this difference will undoubtedly grow more and more; whereas Canada's rural population at present is 55 per cent and the urban 45 per cent—that of the United States is 21 per cent for rural and 79 per cent for urban.

## CAMPING SITES.

There are few matters of more importance to the well-being of the city dwellers than facilities for getting close to nature in the great out-of-doors. If all Canada's city dwellers are to be ensured of such facilities—and all require them—the time has arrived for making provision. What is required is quite distinct from the park areas that a city can itself provide, namely, breathing spots in the city or picnic parks of 100 or 200 acres in the suburbs. What is required is an area in its natural state large enough to constitute a small wilderness—an area measured in square miles—where all who wish may camp and roam and holiday. A place which may not provide as spectacular scenery as the Mountain Parks of the West but which, like them, will belong to and be free to all the people and will be preserved for them from the exploiter and the vandal for all time. To be of real value such parks must be within comparatively easy access to the cities. Each year's delay in the creation of such parks will increase the difficulties in the way of their establishment. If action is taken now, the poor of Canada's cities, and the public in general, will for all time be sure of a place where they can secure the advantages of recreation in the out-of-doors.

Playgrounds and camp-sites such as suggested would mean much for the country because of their uplifting effect upon city children. A concrete illustration of this is the condition reported in 1909 from Chicago. It was found there that within a half mile radius of her twelve playgrounds, juvenile delinquency had decreased 44 per cent, while the same year it had increased 11 per cent in the city as a whole. If it is right for the country to spend millions on charitable and penal institutions, it is surely wise to spend something on measures which will help to make better citizens and thus render penal and charitable institutions less necessary.

## HISTORIC PLACES.

In connection with the camp site proposal it has been suggested that some might be located at points of historic interest.

There are many places of historic interest, poorly marked or unmarked at all. While it is somewhat out of the sphere of National Parks to deal with the marking of battlefields, it is most desirable, from a national standpoint, that such should be set aside as national reserves and that the ruins, old forts, old towers and such, holding historic associations, should be preserved. Canada has much in her history to inspire the rising generation with pride of their forbears and pride of country.

It would be doubly beneficial if these historic spots were not only properly restored and marked but they should be used as places of resort by Canadian children who, while gaining the benefit of outdoor recreation, would at the same time have opportunities of absorbing historical knowledge under conditions that could not fail to make them better Canadians.



4 GEORGE V., A. 1914

## WORK OF THE YEAR.

The policy followed during the year in connection with the work in the various parks was to improve existing roads, trails and other works rather than to undertake very much new work.

Perhaps the work of most importance in the parks is the road work, and it is determined to bring up all the roads to a satisfactory standard before undertaking the construction of new roads. Of course, an exception has to be made from this in so far as the automobile cross-mountain highway is concerned. A substantial amount of new work was done upon it and the policy is to press it through as rapidly as possible.

On this automobile road a steel bridge was erected across the Bow river at Castle and about 10 miles of road constructed from there to Vermilion pass on the Continental Divide. The automobile road westward to Vancouver from Vermilion is being constructed by the Government of British Columbia. The unit in the Park from Castle to Vermilion was built during the year in order that British Columbia officers might have access to the eastern end of their work and thus be in a position to carry on construction from the east as well as from the west.

New plans for the proposed bath-house at the Cave and Basin, Banff, were prepared by Messrs. Painter and Swales, architects. Mr. Painter has designed, or remodelled, many important buildings in Canada, including Windsor station, Montreal, Canadians Pacific Railway hotels at Banff and lake Louise, and the Russell Theatre, Ottawa. He prepared bath-house plans of very attractive design. Excavation work in connection with the bath-house was commenced on September 1, and the foundation practically completed by the end of January, when work was stopped.

The increasing popularity of Banff is well illustrated by the demand for lots there during the past year. So great was this demand that by the middle of July there were no lots in the townsite available, and a survey of additional lots had to be undertaken.

It is interesting to note that despite the unfavourable weather of the summer of 1912 there was a considerable increase in the number of visitors to Rocky Mountains Park. The figures are:—

1911-12.. . . . .	73,725
1912-13.. . . . .	75,882
Increase.. . . . .	2,157

## ROYAL VISIT.

A notable event in the history of the parks was the visit to Rocky Mountains Park and Yoho Park during the summer, of Their Royal Highnesses the Duke and Duchess of Connaught and Princess Patricia. At Banff the Royal party spent a week. In reply to an address of welcome presented on behalf of the citizens of Banff, His Royal Highness spoke as follows:—

‘Gentlemen, I beg you to accept my very best thanks for your loyal address of welcome to myself, to the Duchess, and to my daughter.

‘Although my present journey is devoted almost entirely to the duties connected with my office as Governor General, I could not have passed Banff without making a short stay, devoted entirely to pleasure. I have the most pleasant recollections of a former visit here and my memory has often flown back to the views of the great Rocky mountains frowning down upon the beautiful valley of the Bow river.

‘In a country where so much is constantly changing, it is pleasant to find a National Park such as this, which has been set aside by the wisdom of your legislators, where nature may be felt in all her splendour, where the hand of



## SESSIONAL PAPER No. 25

man will never be allowed to mar the scenery. I can assure you that it gives me great pleasure to renew my acquaintance with the Rocky Mountains Park of Canada and my only regret is that I have so short a time to enjoy the many attractions which are presented by Banff and its vicinity.'

## SEEING THE PARKS ON FOOT.

There is every year an increasing number of visitors who wish to explore the parks on foot, in many ways the best means of becoming acquainted with the beauties of the mountains. To meet the needs of this class of tourists it is proposed to open up foot-paths to points of scenic beauty and to build rest-houses at suitable places along the trails.

## THE PRESERVATION OF WILD LIFE.

All parks are game preserves and the protection which has been afforded within park boundaries has already resulted in a noticeable increase in wild life. The success which has followed these efforts towards protection has led to a consideration of an extension of the preserve idea.

For the preservation of bird life it is felt that small sanctuaries at suitable places should be established throughout the country to ensure the birds protection during the breeding season.

It also appears that with the great demand for fur and the rapidly increasing prices it brings, breeding preserves for animals should be established in the far north—the home of the best fur-bearing animals.

A proposal is now under consideration to establish a protected area for the preservation of the herd of wild buffalo in the Fort Smith country and it is considered that if this area were somewhat enlarged and adequately protected it would become a natural breeding ground for fur-bearing animals. These animals would soon learn they were protected in this area and as they would breed there under the most favourable conditions the overflow should in a short time serve to supply a very large contiguous district.

Reverting to the question of bird protection it should be pointed out that at the last session of the recent United States Congress a Bill was passed providing for federal protection for migratory birds. It was shown that the United States producers sustained an annual loss of \$800,000,000 through the disturbance of nature's balance consequent upon the destruction of insectivorous birds. Officers of the Geological Survey, who are authorities on bird life, calculate that the annual loss sustained in Canada from this cause is probably \$80,000,000.

In view of these facts the question arises whether Canada should not follow the example of the United States and deal with these matters from the Dominion standpoint.

## FIRE PROTECTION.

Fire protection is of vital importance to the parks. The Forestry Branch has had an expert engaged for some time in the development of a comprehensive plan for the protection of the eastern slope of the Rockies now included in a Forest Reserve. The Forestry Branch has been asked to have its officers include the parks in its general scheme for fire protection.

## HOT SPRINGS.

A matter of much interest is the fact that tests of the thermal springs at Banff show these waters to be radio-active. The tests were made by officers of the Geological Survey at the request of the Parks Branch. It is now generally admitted that the curative value of thermal springs depends primarily upon radio-activity and it is therefore very satisfactory to know that the springs at Banff possess this property.

4 GEORGE V., A. 1914

## POWER RESERVATION.

It was noted in last year's report that the privilege of constructing a conservation dam at lake Minnewanka had been given to the Calgary Power on certain conditions, one of which was that a thimble should be inserted to provide for the development by the Parks Branch of electric power at Banff.

In this connection arrangements have been made with a firm of electrical engineers for the preparation of plans and it is expected the branch will shortly be in a position to ask for an appropriation for the carrying out of the enterprise. I may say that the engineers were instructed to make their report as though it were for a private party dealing with the scheme purely as a commercial proposition. The report indicated that the enterprise should prove a paying one almost from the first.

## REINDEER.

A question of considerable importance has been raised in consequence of a petition forwarded by the Yukon Council requesting that the Federal authorities establish reindeer farms in the Yukon. Experiments of the United States Government in the matter of reindeer farms in Alaska have been very successful. There are now 30,000 or 40,000 reindeer in Alaska and they furnish the natives with food, clothing and means of transportation.

It is well known that horses cannot be satisfactorily used in the north on account of the lack of food. Dogs, which now constitute the means of transport, are of comparatively little use because food for them has to be carried and on a long trip the food necessarily constitutes the bulk of the load.

Reindeer, on the other hand, can live on the moss of the country they traverse, and, moreover, in case of shortage of food provide good meat for man.

It is believed that the Canadian hinterland is rich in minerals. It is doubtful whether prospecting and development work can ever be carried on successfully until reindeer are available for transportation purposes.

Therefore the Parks Branch has been making careful inquiries in regard to the subject.

## MILITARY PATROL.

The number of visitors to the Parks is now becoming so large that the necessity of patrolling the roads and trails is becoming a matter of pressing importance. Patrol is desirable for the purpose of securing the safety of the public against slides, and such dangers peculiar to mountain districts and also against hold-ups by highwaymen. So far, Canadian parks have been free from the latter, but there is no certainty of a continuation of this immunity unless adequate measures are taken in that regard.

It is felt that this could best be done by having a body of Mounted Police or Dominion Police permanently stationed in the parks. In this connection it has also been suggested that the parks might be used as training stations for recruits for the Royal Northwest Mounted Police. The Parks would provide ideal training grounds and, in addition, the presence of the recruits would be of material assistance to the parks' administration in the maintenance of law and order.

## ARTISTIC PLANS OF DEVELOPMENT.

Parks are being develop for the future as well as for the present and it is felt that work should be carried out on comprehensive and carefully matured plans.

Arrangements have therefore been made for securing artistic plans of development, especially as regards townsites.

## SESSIONAL PAPER No. 25

## THE BANFF ZOO.

At present the branch maintains at Banff an attractive, though not very large, Zoo. While it now contains some animals that are not native it is felt that it should contain specimens of all Canadian animals and that eventually none others should be kept. It is also intended that as complete as possible a collection of native birds should be added to it. There is very little room for expansion where the present Zoo is located, but a new site on Tunnel mountain has been selected which will meet all requirements.

## PARKS LITERATURE.

At present there is a great lack of literature containing adequate information regarding the Parks. Not only should Parks literature contain the usual descriptive material but it should also contain information relating to the flora, the fauna, the geology and other features. Steps have been taken to secure such.

In this connection it may be added that it is intended to erect pointers and guide boards indicating, for the benefit of the tourist, the various points of interest or routes of special attraction.

## MOOSE MOUNTAIN PARK.

It is hoped to finally establish during the year the new Buffalo Park at Moose Mountain, near Arcola and Carlyle, Saskatchewan. Right of way for the fence was cleared and fireguard ploughed, but in view of the many arguments for an extension of the area or a change to a more suitable location, action regarding the construction of a fence was postponed.

## EXTENSION OF AREAS.

Reference was made last year to the desirability of an extension of the areas of existing parks. No final action has yet been taken in that connection. From the Parks' point of view this is a matter of the greatest importance. There are many extraordinary scenic attractions—for instance, Maligne lake—which are now outside Parks' boundaries. The sooner they are given the protection afforded by incorporation in the Parks system the more certain is their preservation from the fate of the sea-shore areas of Massachusetts and beauty spots of Scotland referred to in the beginning of this report.

## TOWNSITE LOTS.

A strict compliance with building conditions in regard to lots in Banff and other townsites in the Parks has been insisted upon. This policy was adopted because it was found that speculators were taking up all the desirable lots under agreement and simply holding them for speculation, to the disadvantage of the towns concerned and to the bona fide parties who were anxious to secure building sites. Failure to comply with building conditions is promptly followed by cancellation and the result has been that about sixty lots were thus made available for the public. I may add that it was decided to dispose of the right to lease these lots by public competition in order that all might have an equal opportunity to secure them.

## ALPINE CLUB.

The 1912 camp of the Canadian Alpine Club was held at Vermilion pass in Rocky Mountains Park. The camp was largely attended and was a great success in every respect. The club is doing most valuable work for the parks and for Canada.

Thanks to its efforts it appears mountaineering in Canada will ere long become a sport and recreation of the many.

Respectfully submitted,

J. B. HARKIN,  
*Commissioner.*

4 GEORGE V., A. 1914

## DEPARTMENT OF THE INTERIOR.—INSIDE SERVICE.

## DOMINION LANDS BRANCH—Con.

Name.	Division	Title of Office.	Date of Present Appointment.	Salary.	Date of Birth.	Date of First Permanent Appointment.
				\$ cts.		
McGuire, Miss Mary.....	3-B.	Clerk.....	1 Sept. '08	800 00	4 Aug. '85	1 Sept. '08 2 July '08
Dunne, Miss Annie Marguerite.	"	" .....	1 Dec. '09	650 00	21 July '90	1 Dec. '09
Low, Miss Agnes.....	"	" .....	1 Apr. '10	650 00	29 Jan. '91	1 Apr. '10
Stewart, Miss Leah Louise	"	" .....	1 Apr. '10	650 00	20 Oct. '91	1 Apr. '10
Blunt, Miss Lucy Edith....	"	" .....	1 Jan. '11	600 00	11 Aug. '91	*26 Jan. '10 1 Jan. '11
Cleary, Miss Ella Amelia...	"	" .....	18 June '10	600 00	31 July '88	*25 July '10 18 June '10
Bryan, George Wilfred.....	"	" .....	1 Mar. '13	600 00	29 Jan. '91	*28 Feb. '10 27 June '12
McVity, Miss Florence Louise.	"	" .....	1 Dec. '11	550 00	8 Apr. '90	1 Dec. '11
Grant, Miss Isabella May..	"	" .....	21 June '11	550 00	10 Oct. '89	*28 June '11 21 June '11
Morgan, Miss Hilda Adeline	"	" .....	1 July '12	500 00	17 Oct. '92	1 July '12
Sinclair, Miss Edith Maud.	"	" .....	1 Aug. '12	500 00	22 Jan. '91	*1 Feb. '12 1 Aug. '12
Henderson, Miss Anna Minerva.	"	" .....	1 Oct. '12	500 00	8 Aug. '87	*14 Feb. '12 1 Oct. '12
McCabe Miss Kathleen....	"	" .....	1 Oct. '12	500 00	14 June '92	1 Oct. '12
Neilson, Miss Evelyn Dere.	"	" .....	1 Oct. '12	500 00	11 Feb. '93	*8 July '12 1 Oct. '12
Nevins, Miss Margaret Anna.	"	" .....	21 Dec. '12	500 00	21 Mar. '94	*8 July '12 21 Dec. '12
Fair, Miss Marjorie Helen.	"	" .....	1 Jan. '13	500 00	1 Aug. '94	1 Jan. '13
McConnell Miss Kathleen Irene.	"	" .....	1 Jan. '13	500 00	9 July '94	*20 July '12 1 Jan. '13
Story, Miss Alice Annetta...	"	" .....	1 Jan. '13	500 00	4 Aug. '94	*31 July '12 1 Jan. '13
Mills, Miss Marion Nelles..	"	" .....	1 Apr. '13	500 00	20 Dec. '94	*19 Aug. '12 1 April '13
Caron, Oscar.....		Messenger.....	1 Apr. '11	600 00	21 Aug. '86	*2 Jan. '13 1 Apr. '11

## DOMINION PARKS BRANCH.

Harkin, James Bernard.....	1-A.	Commissioner.....	1 Apr. '11	3,000 00	30 Jan. '75	2 Dec. '01
Knechtel, Abraham, B.S. F.E.	1-B.	Clerk.....	1 Sept. '08	2,800 00	25 Mar. '59	1 Sept. '08
Williamson, Frank Hedworth Hamilton.	2-A.	" .....	1 Apr. '13	1,600 00	15 Mar. '83	*1 Jan. '08 1 Sept. '08
Graham, Maxwell Henry...	"	" .....	1 Apr. '13	1,600 00	15 Feb. '72	*15 Apr. '07 1 Sept. '08
Johnson, Duncan William..	"	" .....	1 Apr. '13	1,600 00	7 Aug. '79	*1 Oct. '06 1 Sept. '08
Spero, John Ethelbert.....	2-B.	" .....	1 Oct. '11	1,250 00	19 Jan. '87	*5 June '05 1 Oct. '11
Courtice, William Henry...	"	" .....	1 Sept. '08	1,150 00	22 Apr. '88	*3 Oct. '10 1 Sept. '08
Williams, Miss Mabel Bertha, B.A.	3-A.	" .....	20 Sept. '05	1,200 00	18 Feb. '78	*1 July '08 1 July '04

\*Date of temporary appointment.

## SESSIONAL PAPER No. 30

## DEPARTMENT OF THE INTERIOR.—INSIDE SERVICE.

## DOMINION PARKS BRANCH—CON.

Name.	Division.	Title of Office.	Date of Present Appointment.	Salary.	Date of Birth.	Date of First Permanent Appointment.
				\$ cts.		
Beilby, Miss Rosa.....	3-A.	Clerk .....	1 Apr. '12	950 00	21 Mar. '75	1 Sept. '08 *14 Aug. '06
Von Charles, Miss Freder- icka Alexandra.	"	" .....	1 Apr. '13	900 00	18 Mar. '76	1 Sept. '08 *18 May '08
Kennedy, Miss Mary Alison	"	" .....	1 Apr. '13	900 00	26 Oct. '84	1 Sept. '08 *14 Sept. '03
Lennan, Miss Minnie.....	3-B.	" .....	18 June '10	600 00	10 Oct. '84	18 June '10 *20 Oct. '09
Blenkarn, William.....		Messenger.....	1 Apr. '13	500 00	9 Dec. '65	1 Apr. '13 *6 Nov. '11

## B.C. LANDS, TOWNSITES, ETC., BRANCH.

Maber, Samuel.....	1-A.	Chief of Branch....	1 Apr. '11	3,000 00	28 Jan. '77	1 Sept. '08 *11 July '00
Wyld, Grier.....	2-A.	Clerk .....	1 May '12	1,600 00	28 Aug. '82	1 Sept. '08 *20 Nov. '06
Eastman, Ernest Roy.....	2-B.	" .....	1 July '11	1,250 00	11 Sept. '73	1 July '06 *27 June '04
Wright, Miss Lillith Kath- leen.	3-A.	" .....	1 Apr. '11	1,000 00	24 Feb. '78	1 Sept. '08 *13 Mar. '01
Hawley, Miss Olivia.....	"	" .....	1 Apr. '13	900 00	20 Apr. '78	1 July '04 * 8 Feb. '00
Barber, Miss Lily Jane.....	3-B.	" .....	18 June '10	600 00	24 June '86	18 June '10 *13 Mar. '10
Murphy, Arthur Stephen...		Messenger.....	1 Sept. '03	800 00	12 Apr. '91	1 Sept. '08

## WATER POWER BRANCH.

Challies, John Bow, C.E....	1-B.	Superintendent.....	1 Apr. '11	2,300 00	23 Apr. '82	1 Sept. '08 *16 May '03
Norrish, Bernard Ester- brook, M. Sc.	2-A.	Engineer.....	1 Apr. '11	1,700 00	2 Feb. '85	1 Sept. '08 *31 July '08
Beale, Alfred Martin, B. Sc.	"	Engineer. ....	1 Apr. '13	1,600 00	6 Aug. '84	1 Sept. '08 *21 Apr. '08
Stronach, Robert Summers	2-B.	Draughtsman.....	1 Sept. '08	1,350 00	19 May '82	1 Sept. '08 *27 Apr. '08
Brander, Francis Willough- by.	"	Clerk .....	9 Sept. '12	1,200 00	10 June '82	9 Sept. '12
McIlmoyle, Miss Clemena- Jane.	3-A.	" .....	1 Apr. '11	1,000 00	31 Dec. '73	1 Sept. '08 *11 Nov. '07
Elwell, Mrs Ida Gertrude..	3-B.	" .....	1 Oct. '11	550 00	18 Aug. '77	1 Oct. '11 *14 July '11
McKenzie, Miss Ellen Adele	"	" .....	1 Apr. '13	500 00	16 Nov. '90	1 Apr. '13 *7 Jan. '13
Boselly, Edward Berritt....		Messenger.....	1 Sept. '08	800 00	10 Apr. '36	1 Sept. '98 *9 June '08

\*Date of temporary appointment.

# DOMINION PARKS.

## REPORT OF THE COMMISSIONER OF DOMINION PARKS.

OTTAWA, October 1, 1914.

W. W. CORY, Esq., C.M.G.,

Deputy Minister of the Interior.

SIR,—I beg to submit my report for the year ending March 31, 1914. Attached hereto are annual reports from the Chief Superintendent of Dominion Parks and from the superintendents of the various parks, covering the work accomplished during the year.

In previous reports, I have pointed out that in two important respects national parks very distinctly and very effectively serve public needs: one relates to the revenue they attract to the country by way of tourist traffic, the other relates to the service they render to the people of Canada through the facilities which they provide for recreation in the open air under the best conditions.

To emphasize the commercial value of national parks, I think that it is worth while assembling, with the new material secured in that connection, some of the more important figures given in previous reports. In an earlier report I have shown:—

1. Annual revenue of France from tourist traffic. . . .	\$500,000,000
2. Annual revenue of Switzerland from tourist traffic . . .	150,000,000
3. Annual revenue of Italy from tourist traffic. . . . .	100,000,000
4. Annual revenue of Maine, U.S.A., from tourist traffic. . . . .	40,000,000
5. Annual expenditure of American tourists in England. . . . .	25,000,000
6. Expenditure of American tourists abroad in 1910. . .	350,000,000

The United States Bureau of Statistics has made a calculation in regard to the amount of money spent abroad in 1912 by American tourists. On the basis of 800,000 persons sailing from the United States in 1912, it is estimated that 400,000 were tourists and that each of these spent on an average \$1,000 on the trip, making a total annual expenditure abroad by American tourists of \$400,000,000.

It is calculated that from \$25,000,000 to \$30,000,000 is spent each year by tourists in the three great tourist cities, London, Paris, and Berlin. Figures have been compiled by the New England railway lines with respect to tourist traffic in the New England States, in these states there are 4,406 hotels and boarding houses capable of accommodating 221,141 people. In 1913 these accommodated 1,400,000 guests, and it is calculated the tourists spent there not less than \$100,000,000.

Mr. W. T. Robson, organizer of the Canadian Travel Association (formerly General Advertising Agent of the Canadian Pacific Railway), has prepared a careful estimate of the amount of money spent by tourists in Canada last year. His figures are \$50,000,000. Startling as it may appear, these figures place the value of tourist traffic in the fourth position with respect to revenue from Canada's national resources. The comparison is:—

Field crops, Canada, 1913 . . . . .	\$509,437,000
Forest products, Canada, 1913 . . . . .	161,093,000
Minerals, Canada, 1913 . . . . .	102,300,000
Tourist traffic, Canada, 1913. . . . .	50,000,000
Fisheries, Canada, 1913 . . . . .	43,667,000

5 GEORGE V., A. 1915

The figures compiled are calculated to emphasize the tremendous commercial potentialities of the tourist traffic. Nothing attracts tourists like national parks. Therefore, national parks provide the chief means of bringing to Canada a stream of tourists and a stream of tourists' gold. With the natural attractions and wonders possessed by Canadian parks in particular and Canada in general, it seems obvious that a proper and adequate development of Dominion parks means that millions of dollars annually will be brought into Canada by tourists.

It is perhaps as important to keep Canadian money in Canada as it is to attract foreign money to the Dominion. I have not been able to get any figures in regard to the amount of money spent by Canadians at American resorts, but a moment's thought will convince any one that it will total many millions. Even the money spent abroad is very great. The steamship figures of eastbound traffic during 1912 from Canadian ports are: first cabin, 8,607 and second cabin, 25,519.

I am assured that \$600 per first-class passenger and \$300 per second-class passenger, is a modest estimate as to the average expenditure by such passengers abroad. While, of course, all these people are not tourists, and, for that matter, are not all Canadians, the figures give a basis upon which to make a calculation as to the money annually spent abroad by Canadians, and the calculation is that the total is nearly \$15,000,000.

The development of national parks which give Canadians an opportunity to see incomparable scenery and enjoy unequalled opportunities of recreation under the best conditions, means keeping a portion at least of this money in Canada.

In the United States there has been an active movement whose slogan is: "See America First." The slogan which Canada's outstanding advantages in the way of natural scenic and other attractions justify using in regard to parks' development in Canada is: "See America's Best."

Every step taken in connection with Dominion Parks' work is taken on the principle that they are entirely "Service Parks"; that is, they exist to furnish distinct, effective, and necessary service to the people of Canada. The commercial side of parks already dealt with, constitutes a real service to the people of Canada, but the most important service which the parks render is in the matter of helping to make Canadian people physically fit, mentally efficient, and morally elevated.

The Act under which parks are administered calls them "parks or pleasure grounds." In reality they are entirely pleasure grounds; their mission is to provide, for all Canadians, facilities for obtaining pleasure by play in the broadest meaning of the term. I say this because in its broadest sense, it is wide enough to cover all those elements provided by parks which are so necessary for man,—fresh air, exercise, sunshine, the mental and moral exhilaration which comes from beautiful scenery and life close to nature, and the marvellous tonic properties of play.

The play spirit seems to be one of the strongest instincts in the human being. People strive for wealth chiefly in order that they may provide themselves with more pleasure and more play; they emigrate from one country to another, not so much to secure better food or clothes, as to enable themselves financially and otherwise to do better, in order that they may introduce more joy into their lives. The dominant character of this play-spirit of humanity is indicated by the gigantic sums of money people spend annually upon it. Travel, theatricals, ball games, athletic contests, golf, automobiles, clubs and race courses,—all these and many more are sought by man through his instinct for play. The marvellous development in connection with the moving-picture business is evidence, if any were necessary, that the poorer people share equally with their richer brothers the craving for joy and recreation.

In the final analysis, people play because of the results that follow, whether the play be in the form of athletics, or entertainments, or outings, it matters not, they



## SESSIONAL PAPER No. 25

feel—they know—they have been benefited by it; the recreation has been a tonic for them. If a man is sick of body or weary in mind, the remedy suggested to him by the physician is change of scene, removal from conditions that interfered with the "play spirit," the remedy in reality is play in its broad sense. Most people take holidays in the summer in order that they may be "toned up"; and holidays after all mean play. It therefore seems that play is essential to the well-being of man; if he is weakened, play is one of the most important means to effect his restoration.

It is often a subject of wonder that successful business men remain at work long after they have accumulated vast fortunes. It is well recognized that, in many cases, successful business men who suddenly relinquish business fail in physical and mental health and die. Is it not that their business has become to them a game that it is in reality play and that loss of the "play-spirit" has meant the loss of the sovereign panacea which nature has provided for the maintenance of their health.

The study of history shows that in the ages when the "play instinct" reached its highest development the national life was also at its fullest. The "Golden Age" of Greece is the most notable example; but, in the age of chivalry in Europe, in the Renaissance of Italy and the Elizabethan age in England, there are evidences of the high development of the "play instinct." In the Elizabethan age the "play instinct" reached its highest; England was truly "Merrie England," and all the national life seemed to break into flower. Art, literature, learning, invention, discovery, and adventure were its products. When the reaction came in the Puritan age which followed, national life became sterile, art and literature died. In all ages the absence of the "play spirit" in national life has meant a deterioration in that life through a lack of the vividness, joyousness and liberty out of which national art, invention and heroism have come.

Sir Oliver Lodge in "Modern Problems" says:—

"What again was the main purpose of an Englishman in the time of Elizabeth? Was it not in the fullest and freest sense to live, to develop his life and that of others in the largest manner, to travel and see the world, to depict human life in the drama, to enjoy fresh air and open country and scenes of joyousness? Prof. Bradley has told us how men's minds were filled with the sense of largeness and beauty in the world, which new discoveries and the opening of ancient literatures had almost created anew for them. Life was a thing to be rejoiced in and made much of; even the life of the common people seemed joyous, and its development a worthy theme for poetry and romance. And the result was a patriotism capable of repelling an Armada, and a literature which in some respects surpasses everything that has been done in the world, before or since."

Within recent years there has been a movement, particularly in Europe and the United States, generally referred to as the "Recreation Movement." It has had much to do with the wonderful progress that has been made with respect to supervised playgrounds for children, but its field is much greater than that, and concerns play for adults as well. It has had its origin through recognition of the fact that modern social and industrial conditions are resulting in a suppression or a perversion of the "play spirit," and that this spells danger for the nation as well as for the individual. These adverse conditions exist both in the city and in the country.

To many people in cities, life means long hours of labour amidst the dust and whirl of wheels, an excessive nervous strain, and joyless, monotonous employment; to many of them life is a grind, a round of labour, a season of care, on top of which are conditions of overcrowding. The dangers that threaten, the evils which have been constantly increasing in industrial centres, are a degeneration in physical type, a deterioration in mental and moral quality. The natural course under the existing

5 GEORGE V., A. 1915

conditions leads to the development of a dull, soulless, unimaginative people. For instance, it is well known that in the slums of English cities there has grown up, as a result of modern conditions, a well recognized type weak, hopeless, without initiative, energy, or self-respect, which does not want to secure work and which has no power of "sticking to" work if it is secured—a type which is a menace to the race. Conditions in Canada have not reached the point that they have in the huge industrial centres of England; but England's experience constitutes a warning to Canada to make provisions now to guard against similar misfortune.

The industrial workers are not the only class who have suffered from modern conditions. The ideal of the past century has been the "Strenuous life" and it has pervaded all classes. The policy has been "work, work, work"! The necessity of recreation has not received the recognition due to it. An American writer thus refers to this condition:

"In America, while our minds have been drawn away to material conquests and accumulations, we have, all unconsciously, forgotten how to live; we have lost the tradition of play. In country-side and city we have cherished the ideals of work, not of play; we have apologized for leisure instead of making it divine."

City life means to many temptations which constitute a perversion of the play spirit. Cheap dramatics, low pool-rooms and probably most of the saloons are instances of unworthy relaxation; in fact it is recognized that vice is largely caused by improper or inadequate recreation. It is certain that much harm follows the fact that in cities many young men have to seek recreation on the street corners.

Life in rural districts is also suffering from the stifling of the play-spirit; modern machinery and other improvements in the art of agriculture have meant greatly enlarged farms, and consequently a far more sparse population in the rural districts. In addition, the cities have largely drawn population to themselves at the expense of the farming districts. In this connection it is significant that in dealing with this question the Royal Commission on Technical Education (Dr. J. W. Robertson, Chairman) gives as one reason for this movement to the cities: "The attractiveness to young people of the amusements and excitements afforded by town and city life." People living in the country to-day too often find life an increasing round of toil with few opportunities for pleasure and recreation.

The adverse conditions in city life mean degeneration—physical, mental, and moral—for many workers. The adverse conditions in the country drive people to the cities, and at the same time put a blight of monotony and toil upon many of those who remain.

Howard S. Braucher, author of "Play and Social Progress" has drawn a vivid pen picture of the consequences of the loss of the "play spirit." He says:—

"Hunger, cold, loss of shelter, and needless pain, surely these are tragedies. Yet the climax of tragedy is not reached until one has unveiled another picture—that of a dwarfed, starved, unresponsive and joyless life. When the play spirit has been lost and the future is only one long drawn out work, work, work, which taxes the body but does not engage the soul, then tragedy has reached its climax.

"Every one, even the wealthy business man, may lose the spirit of play. Such a loss may not lessen the volume of work done, but it materially lessens its value. The present financial and industrial losses, due to underplay and consequent loss of power on the part of business leaders for one year alone, would reach a startling amount.

"A lack of vividness, responsiveness and joy is in varying degrees to be observed in all walks of life, in our cities and in the open country. Few people

## SESSIONAL PAPER No. 25

are obtaining the maximum amount of joy, efficiency and power from their lives, The presence of the play spirit means adaptability, capacity for quickly appreciating the influences about them, keen enjoyment of the game, and a consciousness that there are other players besides themselves."

The ultimate purpose of national parks is to provide opportunities and facilities for wholesome play for all Canadians. Many are losing their play instinct because of the drudgery and strenuousness of their occupations; some would play in their leisure hours, but the facilities are denied them; others again, with their play spirit natural and vigorous, have to satisfy it with commercialized recreation that has much evil about it.

Play, or recreation in the parks means fresh air, sunshine and exercise—the most potential agencies which nature provides for the physical regeneration of man. It needs no argument to convince any one in these days of the necessity of pure air. Air is absolutely vital to life; man can live for some time without food or drink, but deprive him of air and he dies almost immediately. Sunlight, too, is of the utmost importance to the physical well being of man; it is not only inimical to the various low forms of life, like tubercle bacilli, which prey on man, but, as one health writer puts it, "Light should be welcomed by us as the first, best, and safest of stimulants and tonics when stimulation is desirable."

The condition of the body has a profound influence upon the brain; the latter can never be at its best when bodily health is impaired, and moral vigour is rarely evident if body and mind are weakened. The modern treatment for the "cure" of convicts—very successful in many countries and many states—is to put them at work in the open air, on prison farms or road construction. When fresh air, sunshine, exercise, and life close to nature cure those with criminal instincts, transforming them into clear-eyed, honest citizens, how can they fail to elevate the man who is without this handicap? It is superfluous to dilate on the value of fresh air, sunshine and exercise to the human being. The importance is instinctively recognized. The only duty is to provide ample facilities for the people to secure them.

This is the reason why in my report last year, I emphasized the necessity of securing national parks or playgrounds throughout the entire Dominion; they are necessary to the well being of the public. Their necessity will become more and more apparent as population increases and life becomes more complex, and, if they are not secured now when land is available and cheap, there can be little hope that reservations adequate to the needs of the country will ever be secured, which will mean failure to provide for all the right and facilities to play under wholesome conditions.

During the past year extensive development work has been carried on in the various parks. Rocky Mountains park, with Banff as its principal town, received most attention, because the hot sulphur springs at Banff, and the grandeur of the scenery in the Lake Louise district, attract by far the largest number of visitors. A great deal of attention was paid to conditions at Banff itself, as it is visited by almost every tourist. The work done chiefly concerned water-service, sewer-service, roads, walks, and similar matters which ultimately affect the comfort and safety of tourists.

An important service was rendered to Rocky Mountains park by Mr. Harlan I. Smith, of the Geological Survey of Canada, in his reorganization of the museum at Banff. Mr. Smith undertook to devote his holidays without charge to the department to this work, and in a short time, and at trifling cost, completely made the Museum over. While the Museum is small, the rearrangement has made it in many respects a model institution.

During the year the department of Marine and Fisheries established a fish hatchery at Banff; as the fisheries of the park had never fully recovered from the dynamiting and netting of the early years of railway construction, the hatchery was

5 GEORGE V., A. 1915

of vital necessity. The co-operation of the Fisheries Department in this connection has been a matter of gratification to all concerned in the welfare of Canada's most wonderful playground, as it doubtless will also be to the thousands of tourists to whom it will mean opportunities for good fishing.

By the construction of a large drain the department was able to reclaim a very large area of swampy ground, situated between the two sections of Banff. A portion of this has been laid out as a recreation ground to accommodate the thousands of one-day excursion parties that daily visit Banff. An unusually handsome and useful building for recreation purposes was also erected on this playground.

During the year a new policy in regard to the disposal of lots in Banff was initiated. Experience had shown that in many cases speculators took up Banff lots without any intention of complying with the building conditions. The result was that persons who really desired to secure homesites for themselves either had to purchase from the speculators or do without lots, which meant that the progress of Banff was being retarded, and that bona fide lot seekers were compelled to pay money to speculators without any real value being received. To terminate this condition of affairs a vigorous policy of cancellation was inaugurated against lot holders who had failed to carry out the conditions of the agreements covering their lots. To give every one an equal chance to secure these cancelled lots, it was decided not to grant them to the first applicants, as had been the practice, but to dispose of them by public auction; it was also felt that this method of disposal would make it unprofitable for the speculator to endeavour to blanket lots as in the past. The experiment proved eminently successful and when a new subdivision—made necessary by the expansion of the town—was completed in the autumn, the lots therein were also offered by public auction.

A contract was made with Mr. T. W. Mawson, the world-famous landscape artist and town planner, for a rearrangement of the two sections of the Banff townsite. Mr. Mawson gave this work his personal attention, and has handed to the department comprehensive reports and plans covering this work; attached hereto is a copy of Mr. Mawson's general report.

A quantity of literature dealing with the parks was prepared during the year. Included in it are:—

A handbook of the Banff Museum, which is designed to cover in a popular way, the natural history of the Rocky mountains. This pamphlet was prepared by Mr. Harlan I. Smith of the Geological Survey, Ottawa.

"Glaciers of the Rockies and Selkirks," by Professor Coleman of Toronto University.

"The Nakimu Caves," a description of the wonderful caves and subterranean passages in the Cougar mountain district of the Selkirks.

A handbook of the Fisheries of Rocky Mountains park, by Mr. S. C. Vick, Fishery Inspector at Banff.

A handbook by Mr. Cainsell, of the Geological Survey, designed to explain to the layman the marvellous history of the Rockies as read from the rocks by the geologist.

"Just a sprig of Mountain Heather," a booklet accompanied by a sprig of mountain heather from the Canadian Rockies. This publication was written chiefly to inform the public with respect to the real purposes served by the National Parks work.

Included in this report is a statement with respect to the annual camp of the Canadian Alpine Club. This club from year to year continues to do a great deal of work of the utmost importance to the Canadians mountains and Canadian mountaineering. Probably no one in Canada has a greater knowledge of, or a greater love for the Rockies than Mr. A. O. Wheeler, the capable and energetic Director of the club. To him and to his associates in the club is largely due the spreading of the fame of Canada's mountains to every quarter of the globe.

## SESSIONAL PAPER No. 25

Mrs. Mary Schäffer, of Banff, the author of "Old Indian Trails" and, in collaboration with Stewardson Brown, of "Alpine Flora of the Canadian Rockies," delivered a series of lectures in Ottawa, Toronto, London, Winnipeg, Edmonton and other Canadian cities, which attracted very large audiences, and gave to her hearers a fascinating vision of the majesty and grandeur of Canada's western parks.

## BUFFALO.

The Government buffalo herd continues to do well; there are now 1,535 buffalo in the two animal enclosures, Elk Island park and Buffalo park. The Elk Island herd shows an increase of eleven for the year making a total of eighty-two head; the Buffalo park herd shows a gross increase of 236 with a decrease of four bringing the number of animals now in the herd up to 1,453. This is more than twice the original number secured in 1907 from Michael Pablo of Montana, and is an indication of the success of the experiment. The animals are in excellent condition and are becoming tamer. Ten females from Rocky Mountains park were shipped to Wainwright during the present month, leaving seventeen males in the Banff paddock.

During 1913-14 the first real development work in Jasper park took place. Lieut.-Col. S. M. Rogers, the Superintendent, proved equal to the great task of transforming a wilderness—a wilderness of extraordinary scenic beauty—into a park; and even in one year he accomplished striking results.

Respectfully submitted,

J. B. HARKIN,  
*Commissioner of Dominion Parks.*

## APPENDIX No. 1.

## REPORT OF THE CHIEF SUPERINTENDENT OF DOMINION PARKS.

EDMONTON, ALTA., April 1, 1914.

J. B. HARKIN, Esq.

Commissioner of Dominion Parks,  
Ottawa, Ontario.

SIR,—I have the honour to submit herewith my second annual report as Chief Superintendent of Dominion Parks for the year ending March 31, 1914.

The reports of the superintendents of the different parks are tabulated under the headings as on previous occasions, viz.:—

1. Report of Chief Superintendent of Dominion Parks.
2. Report of Superintendent of Rocky Mountains Park.
- 2a. Report of the Curator of Banff Museum.
- 2b. Report of Nationalities of Visitors to the Hotels.
- 2c. Report of the Alpine Club.
3. Report of the Superintendent of Yoho and Glacier Parks.
4. Report of Superintendent of Buffalo Park.
5. Report of Superintendent of Elk Island Park.
6. Report of Superintendent of Waterton Lake Park.
7. Report of Superintendent of Jasper Park.

5 GEORGE V. A. 1915

## DEPARTMENT OF THE INTERIOR—INSIDE SERVICE.

## DOMINION LANDS BRANCH—Con.

Name.	Division.	Title of Office.	Date of Present Appointment.	Salary.	Date of Birth.	Date of First Permanent Appointment.
				\$ cts.		
McDonald, Miss Annie Elizabeth.	3-B.	Clerk.....	1 Sept. '08	800 00	14 Nov. '90	1 Sept. '08
McGuire, Miss Mary.....	"	" .....	1 Sept. '08	800 00	4 Aug. '85	*31 Aug. '08 Sept. '08
Dunne, Miss Annie Marguerite.....	"	" .....	1 Dec. '09	700 00	21 July '90	1 July '08 1 Dec. '09
Low, Miss Agnes.....	"	" .....	1 Apr. '10	700 00	29 Jan. '91	*20 Sept. '09 1 Apr. '10
Stewart, Miss Leah Louise	"	" .....	1 Apr. '10	700 00	20 Oct. '91	*26 Jan. '10 1 Apr. '10
Cleary, Miss Ella Amelia...	"	" .....	18 June '10	650 00	31 July '88	*28 Jan. '10 18 June '10
McVity, Miss Florence Louise.	"	" .....	1 Dec. '11	600 00	8 Apr. '90	*28 Feb. '10 1 Dec. '11
Grant, Miss Isabella May...	"	" .....	21 June '11	600 00	10 Oct. '89	*28 June '11 21 June '11
Sinclair, Miss Edith Maud.	"	" .....	1 Aug. '12	550 00	22 Jan. '91	1 Aug. '12
Henderson, Miss Anna Minerva.	"	" .....	1 Oct. '12	550 00	8 Aug. '87	*14 Feb. '12 1 Oct. '12
McCabe, Miss Kathleen....	"	" .....	1 Oct. '12	550 00	14 June '92	1 Oct. '12
Neilson, Miss Evelyn Vere.	"	" .....	1 Oct. '12	550 00	11 Feb. '93	*6 July '12 1 Oct. '12
Nevin, Miss Margaret Anna	"	" .....	21 Dec. '12	550 00	31 Mar. '94	*8 July '12 21 Dec. '12
Fair, Miss Marjorie Helen..	"	" .....	1 Jan. '13	550 00	1 Aug. '94	1 Jan. '13
McConnell, Miss Katharine Irene.....	"	" .....	1 Jan. '13	550 00	9 July '94	*20 July '12 1 Jan. '13
Story, Miss Alice Annetta..	"	" .....	1 Jan. '13	550 00	4 Aug. '94	*31 July '12 1 Jan. '13
Mills, Miss Marion Nelles..	"	" .....	1 Apr. '13	550 00	20 Dec. '94	*19 Aug. '12 1 April '13
McCausland, Miss Frances Agnes	"	" .....	1 July '13	500 00	3 Mar. '94	*2 Jan. '13 1 July '13
Molyneux, Miss Lena Esther	"	" .....	1 July '13	500 00	22 Feb. '93	*6 Feb. '13 1 July '13
Liddle, Miss Alma Mabel..	"	" .....	1 July '13	500 00	6 June '92	*13 May '13 1 July '13
Merriam, Miss Florence Gladys	"	" .....	1 July '13	500 00	3 Nov. '94	*19 Apr. '13 1 July '13
Cleary, Miss Katharine Gertrude	"	" .....	1 Jan. '14	500 00	24 Jan. '94	*6 Feb. '13 1 Jan. '14
Caron, Oscar.....		Messenger.....	1 Apr. '11	650 00	21 Aug. '86	*4 July '13 1 Apr. '11
						*18 Jan. '11

## DOMINION PARKS BRANCH.

Harkin, James Bernard....	1-A.	Commissioner.....	1 Apr. '11	3,100 00	30 Jan. '75	2 Dec. '01
Knechtel, Abraham, B.S. F.E.	1-B.	Chief Forester.....	1 Sept. '08	2,800 00	25 Mar. '59	1 Sept. '08
Williamson, Frank Hedworth Hamilton.	2-A.	Clerk.....	1 Apr. '13	1,650 00	15 Mar. '83	*1 Jan. '08 1 Sept. '08
Graham, Maxwell Henry...	"	" .....	1 Apr. '13	1,650 00	15 Feb. '72	*15 Apr. '07 1 Sept. '08
Johnson, Duncan William...	"	" .....	1 Apr. '13	1,650 00	7 Aug. '79	*20 July '06 1 Sept. '08
						*5 June '05

\*Date of temporary appointment.

## SESSIONAL PAPER No. 30

## DEPARTMENT OF THE INTERIOR.—INSIDE SERVICE.

## DOMINION PARKS BRANCH—CON.

Name..	Division.	Title of Office.	Date of Present Appointment.	Salary.	Date of Birth.	Date of First Permanent Appointment.
				\$ cts.		
Stronach, Robert Summers	2-B.	Draughtsman.....	1 Sept. '08	1,400 00	19 May '82	1 Sept. '08 *27 Apr. '08
Bradley, Henry Alfred.....	"	Clerk .....	1 Apr. '14	800 00	1 Feb. '95	1 Apr. '14 *16 Mch. '14
Jacob, Frederick Drummond.	"	" .....	1 Sept. '08	1,400 00	20 Mar. '65	1 Sept. '08 10 Apr. '08
Spero, John Ethelbert.....	"	" .....	1 Oct. '11	1,300 00	19 Jan. '87	1 Oct. '11 *3 Oct. '10
Shea, John James.....	"	" .....	1 Sept. '08	1,300 00	21 Aug. '75	1 July '08 *6 June '03
Courtice, William Howard.	"	" .....	1 Sept. '08	1,200 00	22 Apr. '88	1 Sept. '08 *1 July '08
Williams, Miss Mabel Berta, B.A.	3-A.	" .....	20 Sept. '05	1,200 00	18 Feb. '78	1 July '04 *19 Jan. '01
Mulhall, Mrs. Mary Ella....	"	" .....	1 Apr. '10	1,100 00	21 Apr. '70	1 July '04 *12 Mar. '00
Beilby, Miss Rosa.....	"	" .....	1 Apr. '12	1,000 00	21 Mar. '75	1 Sept. '08 *14 Aug. '06
von Charles, Miss Fredericka Alexandra.	"	" .....	1 Apr. '13	950 00	18 Mar. '76	1 Sept. '08 *19 May '03
Kennedy, Miss Mary Alison	"	" .....	1 Apr. '13	950 00	26 Oct. '84	1 Sept. '08 *14 Sept. '03
Barber, Miss Dorothy Maria.	"	" .....	1 Apr. '13	950 00	4 May '81	1 Sept. '08 *7 Sept. '07
Lennan, Miss Minnie.....	3-B.	" .....	18 June '10	650 00	10 Oct. '84	18 June '10 *20 Oct. '09
McIlmoyle, Miss Ethel.....	"	" .....	1 Jan. '14	600 00	4 July '84	1 Jan. '14 *3 Sept. '13
Blenkarn, William.....		Messenger.....	1 Apr. '13	550 00	9 Dec. '65	1 Apr. '13 *6 Nov. '11
Morris, Silas John Christie.		" .....	1 Apr. '13	550 00	29 Sept. '79	1 Apr. '13 *10 Aug. '11

## B.C. LANDS, TOWNSITES, ETC., BRANCH.

Maber, Samuel.....	1-A.	Chief of branch.....	1 Apr. '11	3,100 00	28 Jan. '77	1 Sept. '08 *12 July '00
Wyld, Grier.....	2-A.	Clerk.....	1 May '12	1,650 00	28 Aug. '82	1 Sept. '08 *20 Nov. '06
Eastman, Ernest Roy.....	2-B.	" .....	1 July '11	1,300 00	11 Sept. '73	1 July '06 *20 Nov. '06
Watt, James Thomas.....	"	" .....	1 Sept. '08	1,300 00	10 Oct. '80	1 Sept. '08 *27 June '04
Wright, Miss Lillith Kathleen.	3-A.	" .....	1 Apr. '11	1,050 00	24 Feb. '78	1 Sept. '08 *9 Aug. '06
Wood, Miss Edith.....	"	" .....	1 Apr. '11	1,050 00	10 July '82	1 Sept. '08 *13 Mar. '01
McIlmoyle, Miss Clemena Jane.	"	" .....	1 Apr. '11	1,050 00	31 Dec. '73	1 Sept. '08 *18 June '03
Hawley, Miss Olivia.....	"	" .....	1 Apr. '13	950 00	20 Apr. '78	1 Sept. '08 *11 Nov. '07
Bourdon, H.....		Messenger.....	1 Oct. '12	550 00	28 June '83	1 July '04 *8 Feb. '00
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# DOMINION PARKS.

## REPORT OF THE COMMISSIONER OF DOMINION PARKS.

OTTAWA, June 30, 1915.

W. W. CORY, Esq., C.M.G.,

Deputy Minister of the Interior.

SIR,—I beg to submit my fourth annual report of the Dominion Parks Branch of the Department of the Interior.

The year 1914-15 was a year of active development. The details of the work carried on are covered by the reports—attached hereto—of the Chief Superintendent of Dominion Parks and of the superintendents of the individual parks. As on previous occasions I shall devote my attention to a statement of the aims and ideals on which the national parks are being developed.

I have each year emphasized the fact that national parks are not national ornaments, but are essentially service parks; that they exist to render real, necessary, and valuable service to the people of Canada.

The unparalleled conditions which the war has brought about, the extraordinary conditions which will prevail when the war is over, accentuate the necessity of still greater activity along the lines on which parks development has been taking place. There are two general lines on which parks directly and effectively operate to the advantage of the Dominion. One is purely commercial—it relates to the money which the parks by their extraordinary attractions bring into the Dominion through tourist traffic. The other is humanitarian, it relates to what the parks do for the people of Canada by providing for them facilities for recreation (and proper recreation is a most important factor in the matter of moral, mental, and physical efficiency) and the encouragement they give to all Canadians to develop habits of sane recreation.

### COMMERCIAL POSSIBILITIES.

No feature of the war conditions has been more apparent than the commercial depression which has been one of its accompaniments. It has driven home the necessity of Canada's making the most efficient and intelligent use of all her natural resources. The sublime grandeur of Canada's national parks constitutes a very important commercial asset, because of the tourist traffic which it attracts. From year to year I have submitted figures to show the almost unbelievable sums that are annually spent by the world's tourists. A calculation based on the number of tourists attracted to Canada's most important park, that at Banff, during the past five years, indicates very clearly how valuable parks are to the Dominion from the commercial standpoint:—

6 GEORGE V, A. 1916

## VISITORS AT BANFF.

Season.	Canadian.	Foreign.	Total.
1910-11.....	26,274	37,220	63,494
1911-12.....	30,000	43,725	73,725
1912-13.....	45,709	30,173	75,882
1913-14.....	36,144	24,681	60,825
1914-15.....	32,881	15,016	47,897
	171,008	150,815	321,823

The foreign tourist will in most cases spend about \$100 in transportation alone and, in addition, spend large sums on hotels, liveries, souvenirs, etc. But taking \$100 as the average expenditure of each foreign tourist, which is a very low estimate, then during the five years in question foreign tourists who visited Rocky Mountains Park spent in Canada the sum of \$15,081,500.

Now, as to Canadians: during the five years in question the total Canadian visitors were 171,008. If each spent on an average only \$50—and this, too, is a very low estimate because large numbers of the Canadian tourists come from Eastern Canada and therefore pay high transportation charges—then we find that this park resulted in keeping at home \$8,550,400.

Large as these figures are, they represent but a small part of what Canada may derive in future years in actual dollars and cents from its national parks if they are adequately developed to attract tourist traffic. This traffic is fraught with the greatest of potentialities from the purely business standpoint. It is unique in this regard that while it brings in large sums of money it means that the country does not give in return anything which represents a loss to the country. When wheat is sold we sell a portion of the fertility of our soil. But the tourist who pays his money to see our mountains and lakes and falls, our canyons and glaciers, not only leaves his money but also leaves whole and unimpaired all those natural attractions which brought him here. These beauties remain forever to attract more tourists and more tourists' dollars.

There are hundreds of points in Canada not included in parks, which possess outstanding attractions for tourists. There is almost no limit to the amount of tourist business which can be secured, but it will not come to Canada unless it is sought. If Banff alone in five years can attract an aggregate business of approximately twenty-four millions, it seems obvious that there should be an organization developed—either as a part of the parks organization or independent of it—which will actively seek to attract tourist traffic to Canada.

## A TOURIST BUREAU.

Up to the present, efforts to attract tourist traffic have been left to the transportation companies. The country does not leave its immigration propaganda in the hands of the transportation companies, though they are direct beneficiaries from immigration.

Canada's "out-of-doors" both within and without the national parks, is a huge source of potential revenue. A tourist bureau, equipped to deal intelligently with the development of this great national asset appears justified, appears to be demanded in the best interests of Canada and its people. The Parks Branch, as the only federal organization having any direct concern in matters closely related to the development of tourist traffic, has given a good deal of consideration to the question of a

## SESSIONAL PAPER No. 25

tourist bureau. Many suggestions as to organization and policy in that regard have been developed. Several points stand out in this connection. Foreign tourists will not come to Canada unless they are made familiar with the attractions Canada has to offer them. Publicity by interested transportation companies can never be sufficiently effective or adequate because the public is apt to discount any literature issued by them, and any representations made by them, on the ground that they are primarily concerned in selling transportation and so are primarily seeking to secure the tourists' money by any means. The tourist, moreover, wants to know not only that there are worth-while attractions for him, but that when he arrives he will be assured of conveniences, comfort and safety. It is obvious that in regard to all these points, a federal Tourist Bureau alone can adequately and satisfactorily meet the situation. Personally I am convinced that an efficient organization can be developed at comparatively little cost, and that through it a huge revenue can be secured for the people of Canada, which will contribute materially towards meeting the extraordinary expenditures the country has to meet in connection with the war.

## THE HUMAN SIDE.

If war conditions make it desirable for Canada to proceed with an active development of its potential commercial resources, they also, perhaps to an even greater extent, demand renewed activity with respect to that other aspect of parks work—the humanitarian.

Any country's greatest asset is its human units. It matters not what Canada's resources of soil, and forests, and mines, and waters may be, its position in the world, the condition of its people, will depend on the efficiency of its human units. As explained in previous reports, Dominion Parks work, as it really is, stands for those things which are essential to human efficiency—for those things which promote physical, mental, and moral welfare.

As a result of the war, Canada is losing thousands of her most efficient human units. As a result of the war, thousands of her soldiers who return will be maimed or incapacitated. As a result of the war, industrial and economic conditions in Canada will present many new and complicated problems requiring an efficient population to solve. Canada therefore more than ever requires those things which promote human efficiency.

In previous reports I have pointed out in detail the many conditions—unsanitary habits of life, overheated rooms, lack of fresh air, poorly arranged factories and workshops, exclusion of sunlight, foul air, drudgery, monotony, lack of play, and similar hurtful conditions—which are constantly sapping the efficiency of the people. I also pointed out that while many agencies must work to eliminate these adverse conditions, the ideal behind national parks—ample facilities for all Canadians to enjoy recreation in the out-of-doors—if realized, would offer a powerful antidote to these conditions, a means of largely minimizing their corrosive influence. To avoid repeating in detail how parks can and do effectively serve this purpose, attention is called to a few familiar instances of what life in the out-of-doors under proper conditions does for the human being. Every one in Canada has seen for himself the transformation that has been brought about in our troops—the bright eyes, the decisive step, the healthy glow—after a few weeks of “setting-up” in a military camp. For centuries, tuberculosis was an all-powerful and ever-victorious enemy of the human race until a few years ago, when it was discovered that nature—life in the open air close to nature—was an effective remedy, and now the “white plague” is fast disappearing. National parks exist for the purpose of providing for all the people of Canada facilities for acquiring that virile and efficient manhood so noticeable in Canadian military training camps.

6 GEORGE V, A. 1916

During 1914-15, large extensions were made in the areas of the parks. Attention is called to the aims and ideals behind parks to emphasize the necessity of still further extensions, extensions to continue until every citizen of Canada, no matter where he may live, will be within easy access of a park where he can enjoy, by right of citizenship, those facilities for recreation in the open air which are necessary for his well-being, and where he will develop habits which will dominate his life after he has left the parks.

For the value of parks to Canada's people consists perhaps fully as much in their influence in the development of proper habits of recreation in the out-of-doors as it does in the effect on the individual of an outing in a park. It has been well said "Habit is the supreme law of human nature. It is our supreme strength—or our greatest weakness." A habit of recreation in the open air, close to nature, means so much to an individual's efficiency and welfare that it be encouraged and developed.

#### PRESERVATION OF WILD LIFE.

During the year considerable work was also done by the branch in connection with the preservation of wild animals and migratory birds—a natural division of parks' work. National parks exist to preserve not only as much as possible of the natural scenic beauty of the country, but also the fauna and flora and other wild life, for the pleasure and benefit of the generations that are to come. In future years the parks should be the natural history schools of Canada, and ultimately, as civilization encroaches more and more upon the wilderness, the parks will probably be the only places where the native fauna and flora will be found in a natural state.

A couple of years ago Prof. W. T. Hornaday, Director of the New York Zoological Park, startled North America by his book "Our Vanishing Wild Life" in which he clearly showed that America is rapidly becoming a gameless continent, and that unless drastic action is taken at once, practically all wild life will follow the carrier pigeon, the great auk, and the bison, to extinction.

A number of the native birds and animals of Canada are forever extinct. The buffalo was saved at the last moment by the Canadian Government's purchase of the Pablo herd in Montana and the establishment of Buffalo park. If this action had not been taken, the buffalo, the finest wild animal native to Canada, would have been a thing of history only to succeeding generations. The buffalo are now, however, increasing rapidly in the great reserve set apart for them, and it seems probable that Canadians for all time to come will be able to visit the park and enjoy the pleasure of seeing these animals living in a natural state.

While the case of the antelope is not yet so desperate as that of the buffalo, it is fast approaching it. Without protection, there seems no doubt that this graceful animal will be extinct within a very few years. Since the facts were realized, the Parks Branch has been taking steps to prevent the extinction of the antelope. The experiment was first tried of capturing a number and placing them in Buffalo park, but either because the natural food was not what was required, or because they suffered from the shock of capture, the animals did not thrive, and almost all of them died within a few months. Several attempts have been made but have met with little success. During the past year it was decided to try building a reserve about them by inclosing a few square miles in a locality in which a band was found to be living, thus ensuring natural conditions of food, etc., and avoiding the necessity for capture, which seems to have a very injurious effect upon these exceedingly timid animals. It is hoped that in this way better results may be secured.

While the deer, moose, elk, and caribou have not suffered so severely as the buffalo and antelope, Prof. Hornaday shows conclusively that many species are in need of greater protection. The mule deer, one of the finest animals known to sportsmen, has,

## SESSIONAL PAPER No. 25

he asserts, already been four-fifths exterminated; the barren-land caribou, in spite of the enormous numbers still living, will, he predicts, be swept away in 100 years or less; while the moose, except where protected, will surely and rapidly disappear. These conditions emphasize the need of active steps being now taken. Protective laws, while of very great importance, must be supplemented by ample sanctuaries. All Dominion parks are wild-life sanctuaries, and everything done in connection with the extension of parks from the purely humane standpoint previously referred to, will at the same time contribute in a most important and effective way towards the preservation of Canadian wild life.

In this connection, perhaps it is not out of place to call attention to what the preservation of wild life in the national park at Banff has brought about. A few years of rigid protection has resulted in a very great increase in the wild life of the parks. To-day thousands of tourists make special trips to see the large herds of mountain goat, sheep, and other animals that are to be found roaming there in a wild state. These animals have become an attraction to the tourist that is perhaps not even second to the grandeur of the mountain scenery. The protection of wild life in this park adds enormously to its recreational value, and from the purely commercial standpoint it pays because it is to-day attracting and will continue to attract in succeeding years the dollars of the tourist. People love to look at wild animals. The crowds that constantly surround cages in zoos show this, but the attraction of animals in their wild state is immeasurably greater.

The extension of Jasper and Waterton Lakes parks, which took place during the year, will largely contribute towards the preservation of wild life in the Rockies. Jasper park was enlarged from 1,000 to 4,400 square miles, and extended to the south so as to take in the great Brazeau country, which, in addition to possessing striking scenic beauty is among the best big-game districts in the Rockies. Reports from many sources showed that this big game was suffering severely from the inroads of Indians and others, and the most feasible means of protecting it appeared to be by extending the park boundaries as described.

On the borders of Waterton Lakes park there was, similarly, a district famous for Rocky Mountain sheep and goat. The original area of the park, 13.50 square miles, was so small that it afforded practically no protection to the wild sheep and goats of this region. As a result of strong representations from the Camp-Fire Club of America, and other parties interested in the preservation of wild life, it was decided to extend the boundaries of the park to the south as far as the international boundary so as to make it adjoin the United States Glacier national park, thus practically establishing an international game reservation, and to the north as far as the west branch of the Southfork river, covering 423 square miles in all.

## FUR-BEARING ANIMALS.

The increased protection of fur-bearing animals appears to be dictated by every principle of wisdom and economy. Our fur-bearing animals were once the source of immense wealth to Canada, but we have been extremely wasteful with this as with other resources, and have made enormous inroads on our original capital. The value of preserves in restoring the original wealth of wild life is shown by the success which has attended the preservation of beaver in Algonquin park. What has been done there for the beaver can be done for all other wild fur-bearing animals by the creation of reserves in those districts which are known to be their natural habitat. The Parks Branch has during the past year been making investigations with a view to definitely deciding what districts are best adapted for such reserves.

## BIRD PROTECTION.

There is, in addition, great need for sanctuaries for our wild fowl—for the wild geese, duck, plover, etc., of the inland, and for the gulls, terns, and gannets

6 GEORGE V, A. 1916

of our sea-coasts. In the United States, sanctuaries are also being established for song-birds, with most encouraging results. There is no doubt that these reserves are doing much to repair the waste of bird-life which is proving so costly to agriculture, through the consequent increase in insect life. The creation of song-bird sanctuaries in Canada in those parts of the country which suffer most from the depredations of insects might well be considered at the present time.

Active co-operation for the preservation of migratory bird life between the United States and Canada also appears to be essential. Restrictions in the two countries must be complementary. It is useless for Canada to have stringent laws which will protect bird life in its breeding grounds in the Dominion if wholesale slaughter is allowed in the States where the birds go for the winter season. And, of course, it is useless for the United States to enforce rigid protective laws if Canada does not protect the bird life when it migrates north. The United States has proposed a treaty to meet these conditions, and all the provincial authorities in Canada, specially concerned in wild life, have cordially approved the principle of such a treaty.

I have already called attention to the conditions arising out of the war, and the necessity they emphasize of making a survey of Canada's needs and of the resources with which to meet these needs. Canada's wild life is just as much one of her natural resources as her forests, her minerals, or her soil. Sentimental and æsthetic reasons demand the preservation of wild life but, in addition, there are many other important conditions which accentuate this demand. The preservation of bird life is necessary for the protection of Canada's crops. It is estimated to-day that Canadian producers annually lose \$80,000,000 from insect destruction in consequence of the lack of birds to combat the insect army of destruction. Our forests also require the birds to protect them from their insect enemies. Huge areas of Canada's hinterland are immensely valuable as a source of revenue from furs. This industry demands action on lines which will ensure a perpetuation of the supply.

Game birds and the ordinary game animals such as deer and moose are of value as a food supply, but even more so through what they mean in the matter of recreation for the hardworking farmer and the desk-worn city man. There are few things that lure so many people to play and the out-of-doors as wild life. Modern industrial and economic conditions have been doing much to undermine the vitality and efficiency of the human race. One of the important requirements for the welfare of the people to-day is the development of those things which will lure them to some recreation in the out-of-doors in order that bad social conditions may be counteracted and overcome. National parks exist for this purpose, and in this work the parks have no stronger ally than wild life, which seems to call man to the out-of-doors by an appeal to the old primeval instinct of man as he originally was, a hunter and an out-door animal.

Respectfully submitted,

J. B. HARKIN,

*Commissioner of Dominion Parks.*



## SESSIONAL PAPER No. 30

## DEPARTMENT OF THE INTERIOR.—INSIDE SERVICE.

## DOMINION LANDS BRANCH.—Con.

Name.	Division.	Title of Office.	Date of Present Appointment.	Salary.	Date of Birth.	Date of First Permanent Appointment.
				\$ cts.		
Craig, Miss Mary Alice Jean	3-B.	Clerk.. ..	1 July '14	500 00	13 July '91	1 July '14
Ward, Miss Edith Mary....	"	" .....	1 July '14	500 00	13 Apr. '95	1 July '14
Proulx, Miss Antonia.....	"	" .....	1 July '14	500 00	25 May '89	1 July '14
Fairbairn, Miss Julia Hilda	"	" .....	1 July '14	500 00	11 Feb. '96	1 July '14
Nevins, Miss Katherine....	"	" .....	1 July '14	500 00	25 Dec. '96	1 July '14
Hoar, Miss Edith May....	"	" .....	29 July '14	500 00	16 Feb. '94	29 July '14
Larivière, Rodolph Wiffrid		Sorter.....	1 Apr. '14	550 00	11 Dec. '95	1 Apr. '14
Caron, Oscar.....		Messenger.....	1 Apr. '11	700 00	21 Aug. '86	* 1 Jan. '13 1 Apr. '11 *18 Jan. '11

## DOMINION PARKS BRANCH.

Harkin, James Bernard....	1-A.	Commissioner.....	1 Apr. '11	3,200 00	30 Jan. '75	2 Dec. '01
Knechtel, Abraham, B.Sc.	1-B.	Chief Forester.....	1 Sept. '08	2,800 00	25 Mar. '59	1 Sept. '08
Agri, F.E.						*1 Jan. '08
Williamson, Frank Hedworth Hamilton.	2-A.	Clerk.....	1 Apr. '13	1,700 00	15 Mar. '83	1 Sept. '08
Graham, Maxwell Henry...	"	" .....	1 Apr. '13	1,700 00	15 Feb. '72	*15 Apr. '07 1 Sept. '08
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Barber, Miss Dorothy Maria.	"	" .....	1 Apr. '13	1,000 00	4 May '81	*14 Sept. '03 1 Sept. '08
Jukes, Miss Thirza Ethel..	3-B.	" .....	1 Sept. '08	800 00	2 Apr. '75	*7 Sept. '07 1 Sept. '08
Lennan, Miss Minnie.....	"	" .....	18 June '10	700 00	10 Oct. '84	*10 May '07 18 June '10
McIlmoyle, Miss Ethel....	"	" .....	1 Jan. '14	650 00	4 July '84	*20 Oct. '09 1 Jan. '14
Love, Miss Gertrude Arabella.	"	" .....	17 July '14	500 00	25 Aug. '93	*3 Sept. '13 17 July '14

\*Date of temporary appointment.



6 GEORGE V, A. 1916

## DEPARTMENT OF THE INTERIOR—INSIDE SERVICE.

## DOMINION PARKS BRANCH—CON.

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Proctor, George Stephen...	2-B.	Draughtsman.....	1 Sept. '08	1,600 00	8 Aug. '71	1 Sept. '03 * 1 July '00
Watt, James Thomas.....	"	Clerk.....	1 Sept. '08	1,350 00	10 Oct. '80	1 Sept. '08 *9 Aug. '06
Wright, Miss Lillith Kathleen.	3-A.	" .....	1 Apr. '11	1,100 00	24 Feb. '78	1 Sept. '03 *13 Mar. '01
Wood, Miss Edith.....	"	" .....	1 Apr. '11	1,100 00	10 July '82	1 Sept. '03 *18 June '03
McIlmoyle, Miss Clemena Jane.	"	" .....	1 Apr. '11	1,100 00	31 Dec. '73	1 Sept. '08 *11 Nov. '07
Hawley, Miss Olivia.....	"	" .....	1 Apr. '13	1,000 00	20 Apr. '78	1 July '04 *8 Feb. '00
Turner, William Joseph Lorne.	3-B.	" .....	30 June '14	500 00	14 Aug. '83	30 June '14
Bourdon, H.....		Messenger.....	1 Oct. '12	600 00	28 June '83	1 Oct. '12 *15 Apr. '12

## WATER POWER BRANCH.

Challies, John Bow, C.E....	1-B.	Superintendent.....	1 Apr. '11	2,500 00	23 Apr. '81	1 Sept. '08 *16 May '03
Weld, William Elfred, D.L.S.	2-A.	Technical clerk.....	1 Sept. '08	2,050 00	1 Feb. '84	1 Sept. '08 *27 Aug. '05
Norrish, Bernard Esterbrooke, M. Sc.	"	Chief draughtsman.	1 Apr. '11	1,800 00	22 Feb. '85	1 Sept. '08 *31 July '08
Beale, Alfred Martin, B.Sc.	"	Engineer.....	1 Apr. '13	1,700 00	6 Aug. '84	1 Sept. '08 *21 Apr. '03
Forbes, Edward Stanley...	"	Clerk.....	1 Apr. '13	1,700 00	2 Mar. '82	1 Apr. '10 * 1 May '08
Brown, William Laing.....	2-B.	" .....	12 Aug. '13	1,350 00	14 Nov. '78	12 Aug. '13
Brander, Francis Willoughby.	"	" .....	9 Sept. '12	1,300 00	10 June '82	9 Sept. '12
Allan, Nichol Trotter.....	"	" .....	12 Nov. '14	1,300 00	9 Sept. '90	12 Nov. '14 * 1 May '14
Jones, George Edward.....	"	" .....	2 June '13	1,250 00	19 Jan. '85	2 June '13
Wilkinson, Percy.....	3-A.	" .....	1 Sept. '08	1,200 00	14 Feb. '80	1 Mar. '07 *20 Sept. '06
Witten, Stewart.....	"	" .....	1 Apr. '11	1,100 00	29 Oct. '76	1 Sept. '03 *27 Apr. '08
Grant, Miss Edith Agnes..	"	" .....	1 Aug. '12	1,000 00	10 Apr. '31	1 Sept. '08 *25 Mar. '07

\*Date of temporary appointment.

## DOMINION PARKS.

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Following is the fifth annual report of the Commissioner of Dominion Parks. To it are appended reports from the chief superintendent and from the superintendents of the various parks. These naturally deal with the details of the work accomplished in the several parks during the year. My own report, therefore, is principally a general survey of the work, and of the aims and ideals upon which it is based.

### DOMINION PARKS BRANCH.

In previous reports I have submitted figures to show that Canada's National Parks already bring into the country very large sums of money through the tourist traffic which they attract, and that this business is capable of tremendous expansion provided a vigorous policy of publicity is carried out and adequate steps are taken to furnish facilities which will enable the tourist to see the charms and wonders of the parks in safety, comfort, and convenience.

#### TOURIST TRAFFIC.

Perhaps circumstances were never so favourable as at present for effective work with respect to development of the tourist traffic. On account of the war, Europe, which in the past has annually taken a toll of hundreds of millions of dollars in tourist business, is now closed to the pleasure seeker. On the other hand, because of the war the United States is enjoying a period of unprecedented prosperity and its people are financially in a position to spend huge sums upon travel and recreation. At the present time, for all practical purposes, the only field open to them is Canada and the United States.

As soon as the war is over undoubtedly thousands of tourists from this continent will wish to go to Europe to see the battlefields. But the past has clearly established the fact that practically every tourist who visits the Canadian Rockies becomes a "booster" for them. It is therefore imperative that during the war every possible effort should be made to attract tourists to the Canadian mountains in order that when the call of the battlefields sets in there may be thousands of people throughout this continent to whom the call of the mountains shall be strong and who moreover will influence others to "See America First."

While the desirability of attracting tourist traffic on account of its commercial aspect is always evident and always important, the conditions that the war is creating in Canada now make it doubly so. Canada is daily adding huge sums to its national debt on account of war expenditure; and, in addition, thousands of its former producers are now at the battle front. There is nothing in history to suggest that the end of the war will not mean a period of re-construction calling for commercial capacity, together with resourcefulness and elasticity of the nation. If during the war and the years succeeding, millions of dollars can be brought into the country through tourist traffic, a valuable contribution to national welfare will have been made.

It is estimated that 50,000 foreign tourists visited the Canadian mountains last year. If the average expenditure of these tourists was only \$100 each (and this is con-

7 GEORGE V., A. 1917

sidered a very low estimate) it means that five million dollars was added to the circulation of the country—that this amount of money was distributed among the railway men, the livery men, the hotel employees, the merchants, and the farmers of the country. When it is considered that the people of this continent spend hundreds of millions of dollars each year on travel and recreation and that the Canadian Rockies offer a field for travel and recreation unsurpassed in the world, it seems obvious that Canada should and can get a much greater share of the tourist business than she is now getting. With the favourable opportunity which existing circumstances present, and the pressing need of neglecting no potential source of revenue, the present is the psychological moment for redoubled activity in this connection.

## CANADA'S SUCCESS.

Canada's success in past years in regard to tourist traffic is an indication of what efficient work can do with respect to succeeding years. In the spring of 1916 "The Committee on the Public Lands" of the House of Representatives at Washington held two special sittings listening to evidence with respect to a Bill then before Congress providing for the establishment of a National Parks Bureau for the United States. I wish to submit some extracts from the committee's report, which constitute striking evidence as to the views held in the United States concerning the tourist traffic in Canada.

The following is from the evidence given by Mr. Richard Watrous, Secretary of the American Civic Association:—

"Canada has been ahead of us on the national park proposition in every respect—in almost every respect. I am going to say, first of all, that that was best illustrated this past summer when the great drift of travel from the East to the West on account of the expositions at San Francisco and San Diego brought out the fact that the Canadian national parks, because of their exploitation, and because of the things that had been done to make them ready for the comfort and convenience and safety of the tourists, drew the great, wholesale travel—I learned on very good authority that of the travel which went west about 75 per cent was routed, either going or returning, by Canadian railroad systems, so they had the business going one way, and the other way was divided up between our four or five transcontinental systems. That meant thousands upon thousands of dollars of cold American cash for Canada, to be credited to its parks."

The following is an extract from the evidence of Mr. Stephen T. Mather, Assistant to the Secretary of the Interior (Washington):—

"I think one reason why Glacier did not get more visitors was because a great majority of the people who went to the expositions returned by the northern routes—75 per cent of them returned by the Canadian Pacific, thanks to the very efficient advertising which Canada has done."

Mr. Horace McFarland, President of the American Civic Association, in his evidence referred to certain literature being issued in connection with American National Parks and said:—

"It does seem to me that if the war should end to-morrow, and the Atlantic lanes should be open and free from any assault, the circulation of these documents in the fashion that is contemplated would probably result in keeping in the United States during 1916 at least \$50,000,000 that would otherwise go abroad. Advertising pays, as has been rather vigorously brought out in con-

## SESSIONAL PAPER No. 25

nection with the diversion from the States of the people who went up along the Canadian Pacific on their way back from the expositions, and advertising of this nature is so businesslike that I wonder that the Government ever gets away with it".

Mr. Robert Sterling Yard, of the Department of the Interior, Washington, referring to publicity work in regard to the Canadian mountains said:—

"Till then in this country, every man, woman, and child, had been brought up to the belief that the greatest scenery of the world was in Switzerland; and now, in the last few years, they have also added the Canadian Rockies. That is the great word in this country to-day—the Canadian Rockies."

Mr. P. S. Eustis, General Passenger Agent of the Burlington Railroad, dealing in his testimony with the arrangements among the various railways in regard to tourist tickets said:—

"Those coast tickets are on sale just the same as they always have been, the same as they were last year, but a great many of them take in the Canadian park region, for one reason or another. They seem to have better park arrangements in Canada than we have in the United States. We are rather scattered."

## HUMAN DIVIDENDS.

The commercial dividends which national parks pay are of such great importance that they cannot at any time be overlooked, but the human dividends they pay in the form of renewed and increased health, efficiency and power—physical, mental, and moral—on the part of the people of Canada, are of much greater moment. Of all Canada's natural resources, the greatest is her men and women. In previous reports I have pointed out the wastage and the havoc wrought among our human assets in normal times of peace, and have urged the extension of national parks work as a means of remedying these conditions. Whatever conditions may have been in the past, the need of a policy calculated to conserve Canada's human assets is now, in consequence of the war, a million times greater. To-day several hundred thousands of the best men of the Dominion are taking part in the war. Thousands of them will unfortunately never return, and many more will come back shattered by bullet, incapacitated by shell. Even those whom circumstances have kept in Canada cannot be expected to emerge from the strain and worry unimpaired. At the end of the war there will necessarily be a period of reconstruction calling for the best efforts of virile and efficient manhood and womanhood. Canada's success within her own borders and her contribution with respect to the Imperial and inter-Ally schemes that are already being discussed will depend on the efficiency of her human assets. The higher the average in regard to the human units, the greater will be her measure of success. With the losses and damage she is sustaining, with the work that lies before her at the conclusion of the war, it follows with absolute logic that nothing should be neglected which will restore and promote the health, the virility and the intelligence of the Dominion's human assets. From this time on, it must be more and more recognized that patriotism not only consists in warfare against a country's enemies without its borders but involves the care of its citizens within.

## FUNDAMENTAL FUNCTION.

The ideal with respect to Canada now must be the development of every Canadian to his utmost degree of efficiency. Such efficiency depends entirely on his physical, mental and moral development to minister to which is the fundamental function of

7 GEORGE V, A. 1917

national parks. Previous reports have dealt at length with this subject to show that to put and to keep the human unit in its most efficient state, recreation in the out-of-doors, especially in those portions of the out-of-doors of outstanding beauty and attractiveness is absolutely essential. The reasons which prove this need not be repeated except to emphasise what is familiar to every one, viz., that an order to go to the seaside or the mountains is the prescription most given by physicians in cases which defy all other methods of treatment.

National parks comprise the most beautiful parts of the Dominion. They are maintained for all the people of Canada—for the ill, that they may be restored, for the well, that they may be fortified and inspired by the sunshine, the fresh air, the beauty, and all the other healing, ennobling, and inspiring agencies of nature. They exist in order that every citizen of Canada may satisfy his soul-craving for nature and nature's beauty; that he may absorb the energy and power of the sunshine and the fresh air; that nature's smiles may be reflected into him and that he may sing with the winds and laugh with the mountain torrents; that he may absorb the poise and restfulness of the forests; that he may steep his soul in the brilliance of the wild flowers and the sublimity of the mountain peaks; that he may develop in himself the buoyancy, the joy, and the activity he sees in the wild animals; that he may stock his brain and his mind as he would a warehouse with the raw material of intelligent optimism, great thoughts, noble ideals; that he may be made better, happier and healthier.

• It is true that, situated as they are now, national parks—national health reserves—are not within reach of all the citizens of Canada. However, that is a condition that can gradually be improved, and it is felt, moreover, that national parks as they are may be likened to a great power house in remote mountains which carry light, heat and energy to far-away cities. They proclaim to all the people, in the voice of the country, the necessity for recreation in the out-of-doors, and encourage those who cannot go to the parks to go to other beauty spots—with which Canada abounds—and there re-create themselves by getting in close touch with nature.

#### THE WAR AND THE PARKS.

The war has naturally exercised a great influence upon parks matters. In the first place it has necessitated a reduction of 50 per cent in the appropriations for parks purposes. In the second it has impressed more forcibly than ever upon those concerned in parks work the importance of the results to be achieved through the development of national parks.

#### ALIEN LABOUR.

The appropriations for 1915-16 were calculated purely on a maintenance basis. A great deal of new work has been accomplished, nevertheless, through the establishment in the parks of working camps of interned aliens. In this connection I wish to acknowledge the cordial and efficient co-operation of General Sir William D. Otter, in charge of internment operations. At the beginning of the year large numbers of interned aliens were being maintained by the Government. It was felt that it was not good for the prisoners to live for months in a state of idleness; that it would be advantageous for them to have work to do and that having to maintain them in any case it would be good business for the Government to secure with such labour the construction of roads and other public works in the parks. By an arrangement with the internment authorities the parks service undertook to provide suitable camps, foremen to direct the work and transport of supplies for the camps; the guarding, feeding, payment, and control of the aliens to be the duty of the internment service.

## SESSIONAL PAPER No. 25

The total number of aliens at work in the parks at the end of the fiscal year was 800.

The aliens were employed in the summer months principally on road construction; in the winter on bridge construction, cutting rights of way for roads, cutting of fence posts for Buffalo and other animal parks, the making of macadam, and general clearing operations in the woods.

## FOREST PROTECTION.

Special progress was made during the year with respect to the protection of the forested areas of the parks from fire, a matter which is of vital importance in parks work. The great forested slopes of the Canadian Rockies contribute very largely to the charm of the mountains. Substitute blackened stumps and gaunt and lifeless rampikes for such areas, and how many tourists would care to visit the parks, how many people would seek or could secure there the recreation and health and vigour which the parks as they are develop in those who visit them.

The two most important developments with respect to forest fire protection concerned:—

The development of a readily portable gasoline pumping engine for putting out fires when they occur; this being so far as can be ascertained the first practical and successful step ever taken to utilize power pumps for forest protection.

A campaign of education calculated to prevent the starting of forest fires.

In regard to the engine it needs no argument to convince any one that the surest way of putting out fire is to apply water. In forest fire fighting it is well known, especially in a mountainous country, very little can be accomplished with buckets. It is a physical impossibility for men to carry water under fire conditions for any length of time, and it is equally true that when a man has climbed up a rough hill-side with a bucket of water there is usually very little water left in the pail when he reaches the fire.

It is the experience of nearly all who have been concerned in forest protection that most of the big fires are what are called secondary fires. As a rule fires are discovered early enough to permit of their being isolated in a small area. The usual practice then is to have a body of men watch the fire to prevent it spreading from the burning logs, stumps, and humus of the segregated area. Very often a wind storm comes up, carries the fire forward despite the efforts of the watchmen, and a conflagration is the result. It was figured that if water could be got quickly and in quantity on such a confined area, one of the most serious menaces would be removed. It was this that led the parks organization to consider the possibility of a portable gasoline fire engine. For such a purpose it is obvious that light weight and high power are essential. After a number of experiments, an engine has been developed which combines both. It weighs, stripped, 118 pounds; equipped with solid oak base, etc., for work, 143 pounds. This engine is rated 6 horse-power. It delivers 20 gallons of water per minute, through 1,500 feet of hose. Assuming that it would take one man with a bucket ten minutes to deliver 10 quarts of water at a fire, it will be seen that this engine will do the work of 80 men, and of course do it at an insignificant cost.

The engine in its field tests has exceeded expectations. While there were no large forest fires during the year, the engine was tried out in the field in brush-burning operations. Mr. H. E. Sibbald, Chief Fire and Game warden, Rocky Mountains Park, who was in charge of the engine part of the time reported as follows:—

The engine enabled us to burn the brush in large piles within a clearing of 40 feet in very dry weather without scorching the standing trees; also enabled us to keep fire from spreading along the ground and entirely extinguishing fires before leaving in the evening. Not one fire started up after being put out.



7 GEORGE V, A. 1917

We carried the water in one instance over a steep hill, 200 feet high, and along clearing for 600 feet, the gauge showing a pressure of from 85 to 90 pounds. This enabled us, by holding the nozzle close to the edge of the fire, to make a ditch from 4 to 6 inches deep all around the fire from the force of the water. This will relieve us of digging a trench round a fire, as it is through the hidden roots that fires always get away."

Mr. C. Phillips, Fire Warden, who continued in charge of the engine wrote:—

The whole apparatus was given a very fair four day-test at the Alien Detention Camp at Castle mountain last month, while the aliens were burning large piles of brush and small timber, and the pump undoubtedly kept the fire within the required area.

Water was taken from the river and pumped through 800 feet of hose to points where required, varying from 50 to 150 feet above the water level. A pressure of 90 pounds was obtained at the outlet of the pump, and a stream of water was thrown about 40 feet at the nozzle.

An engine of this kind, that can be taken anywhere in the mountains, by manpower if necessary, should be of great value in extinguishing fires which are guarded, and possibly, may be of great use in direct fire fighting. The intention is to use a battery of engines, so arranged that one engine will pump through 1,500 feet of hose to a readily portable canvas basin, and a second unit pump from that, and so on.

#### EDUCATIONAL WORK.

A great deal of attention was devoted to a campaign calculated to educate the public in the matter of forest protection, and to secure the co-operation of the public in the matter of fire protection.

Practically there are only two kinds of fires, so far as the parks are concerned at any rate; those arising from human causes and those caused by lightning. We cannot prevent fires that are caused by lightning but those of human origin are nearly always the result of ignorance or carelessness. Not one fire in ten thousand is started deliberately. It is simply another case of "not knowing it was loaded"—because the necessity for care is not realized. It is obvious that education is a first necessity. It is agreed that the way to influence the public is to use affirmation and iteration. Moreover, it is well recognized that man is a creature of habit. A campaign of education was therefore launched calculated to force into the minds of the public by affirmation and iteration the necessity of every one helping in forest protection, and to develop as a natural result on the part of the public careful habits with respect to fire.

The policy followed was to secure the printing of suitable fire-warning notices on articles which are used in the woods in order that the warning should constantly be before the people at times when they are liable to start forest fires. As a result of the campaign, fire-warning notices are now published on practically all the match boxes manufactured; notices are inserted in all the rifle and shot-gun ammunition boxes, and are placed on many of the axes made in the Dominion; in the cabs of locomotives operating in the parks; in Bell telephone directories; in railway time-tables; in railway passenger coaches; on dining-car menu cards; on the menu cards and in the guest rooms of the hotels in the parks; in the form of coloured slides in the moving picture shows operating in the parks; on the livery rigs and pony reins in the parks; on the letter paper of hotels and business places in the parks. It is an evidence of the public spirit of the business men of Canada that the various firms who were asked to co-operate in this campaign of education responded promptly and willingly, and in all cases did so at their own expense.



## SESSIONAL PAPER No. 25

## PROTECTION OF WILD LIFE.

Wild life, the protection of which is one of the important features of parks work, occupied a great deal of attention. The activities of the Parks Branch in this connection extended beyond the protection of the wild life in the parks, and included many matters in relation to conservation of game and the fur-bearers of the Northwest Territories; the question of the development of reindeer herds in the Canadian hinterland; the problem offered by wolves and other predatory animals along the international boundary; and, in co-operation with Dr. Gordon Hewitt, Dominion Entomologist, and Mr. James White, Assistant to the Chairman of the Conservation Commission, action in regard to the proposed treaty with the United States for the protection of migratory birds.

## CAPTURE OF ANTELOPE.

Special gratification is felt at the capture of a herd of nearly 50 wild antelope, and their location within a fenced park. The antelope, once almost as numerous as the buffalo, in certain portions of the west, is now very rapidly approaching the extinction stage. The herd which has been captured, it is hoped, will assure the perpetuation of this beautiful animal. The capture of the herd was carried out by Mr. Maxwell Graham, Chief of the Animal Division of the Parks organization, and the method followed was a novel one. Discovering the antelope on what appeared to be their summer habitat, Mr. Graham succeeded in building a fence around the area without disturbing them, thus avoiding the shock of capture which in other years has almost always been followed by fatal results.

## CATTALO EXPERIMENTS.

For several years this Branch has urged that steps should be taken to carry on cross-breeding experiments with respect to buffalo and domestic cattle with a view to the development of a new type of domestic animal which would not only possess the capacity to rustle and to take care of itself under conditions which are fatal to ordinary range cattle, but which at the same time would possess the additional value of producing a robe like that of the buffalo.

During the year Mr. J. H. Grisdale, Director of Dominion Experimental Farms, undertook to take charge of the cross-breeding work and has made all arrangements for carrying on the experimental work.

## PARKS IDEAL.

As I have endeavoured to point out in the previous report, the ideal on which National Parks are being administered is the production of dividends for Canada—dividends in gold and dividends in human units. It is confidently believed that parks, or rather that for which parks stand—recreation in God's out-of-doors—can materially assist in remedying whatever damage the war may do to Canada's human assets. The war, on the other hand, has enabled the Canadian people to find themselves as never before. Canadians to-day possess and know they possess purposefulness, capacity for responsibility and organization, directive ability, discipline. They emerge from the war with a sense of capacity and masterfulness. At its root, patriotism is to a great extent the love of nature as a man knows her in his own country. It is that caress of nature, which is the quality of their country in their own eyes, which has inspired the achievements of Canadians in Flanders. It is the caress of nature which will make Canada's crop of citizens as rugged and sturdy as its mountains, as powerful as its waterfalls, and as brilliant as its sunshine. National Parks exist to-day primarily to guide the Canadian people to close contact with nature.

J. B. HARKIN.

McKibbon, Miss Hattie May.....	Clerk—Commis.....	3-B.	20 July '14	550 00	15 Dec. '92	2 July '14	20 July '14
McIntosh, Miss Marjorie Annie.....	" ".....	"	27 July '14	550 00	23 Feb. '96	25 June '14	27 July '14
Palmer, Miss Irene.....	" ".....	"	13 July '14	550 00	5 Dec. '89		13 July '14
Ingersoll, Miss Clarissa Lillian.....	" ".....	"	1 Oct. '14	550 00	27 Oct. '90	4 Feb. '14	1 Oct. '14
Poster, Miss Ann Jane.....	" ".....	"	3 Feb. '16	500 00	3 Dec. '93	22 Feb. '15	3 Feb. '16
Bebb, Miss Emma Marie.....	" ".....	"	12 Jan. '16	500 00	11 Jan. '90		12 Jan. '16
Fagan, Thomas Edmund.....	Messenger—Messenger.....		1 Apr. '10	800 00	2 June '93	17 Nov. '09	1 Apr. '10
Chevrier, Alfred Raoul.....	" ".....		1 July '13	800 00	16 May '89	22 Aug. '12	1 July '13
Hill, Charles Walter.....	" ".....		1 Apr. '14	550 00	5 Aug. '81	29 Jan. '13	1 Apr. '14
Mallette, George Julian.....	" ".....		1 Jan. '15	550 00	12 Jan. '96	17 Feb. '13	1 Jan. '15
Blatchly, Mrs. Edna Morden.....	Sorter—Trieuse.....		1 Apr. '14	600 00	9 Nov. '80	3 Nov. '13	1 Apr. '13

DOMINION PARKS BRANCH—DIVISION DES PARCS FÉDÉRAUX.

Harkin, James Bernard.....	Commissioner—Commissaire.....	1-A.	1 Apr. '11	3,300 00	30 Jan. '75		2 Dec. '01
Williamson, Frank Hedworth Hamilton.....	Clerk—Commis.....	1-B.	1 Apr. '13	2,100 00	15 Mar. '83	15 Apr. '07	1 Sept. '08
Clunn, Thomas Henry Gwyther, D.L.S.....	Draughtsman—Dessinateur.....	2-A.	1 Apr. '09	1,900 00	13 Nov. '74	20 May '03	1 Sept. '08
Pinard, Arthur Achille.....	Clerk—Commis.....	"	1 Apr. '09	1,900 00	28 Aug. '72	24 Dec. '89	9 Feb. '92
Graham, Maxwell Henry.....	" ".....	"	1 Apr. '13	1,750 00	16 Feb. '72	20 July '06	1 Sept. '08
Johnson, Duncan William.....	" ".....	"	1 Apr. '13	1,750 00	7 Aug. '79	5 June '05	1 Sept. '08
Stronach, Robert Summers.....	Engineer—Ingénieur.....	"	1 Apr. '14	1,650 00	19 May '82	27 Apr. '08	1 Sept. '08
Jacob, Frederick Drummond.....	Clerk—Commis.....	2-B.	1 Sept. '08	1,500 00	20 Mar. '65	10 Apr. '08	1 Sept. '08
Spero, John Ethelbert.....	" ".....	"	1 Oct. '11	1,400 00	19 Jan. '87	3 Oct. '10	1 Oct. '11
Shea, John James.....	" ".....	"	1 Sept. '08	1,400 00	21 Aug. '75	6 June '03	1 July '08
Courtice, William Howard.....	" ".....	"	1 Sept. '08	1,300 00	22 Apr. '88	1 July '08	1 Sept. '08
Bradley, Henry Alfred.....	" ".....	"	1 Apr. '14	850 00	1 Feb. '95	16 Mar. '14	1 Apr. '14
Williams, Miss Mabel Berta, B.A.....	" ".....	3-A.	20 Sept. '05	1,200 00	18 Feb. '78	19 Jan. '01	1 July '04
Beilby, Miss Rosa.....	" ".....	"	1 Apr. '12	1,100 00	21 Mar. '75	14 Aug. '06	1 Sept. '08
von Charles, Miss Fredericka Alexandra.....	" ".....	"	1 Apr. '13	1,050 00	18 Mar. '76	19 May '08	1 Sept. '08
Kennedy, Miss Mary Alison.....	" ".....	"	1 Apr. '13	1,050 00	26 Oct. '84	14 Sept. '03	1 Sept. '08
Barber, Miss Dorothy Maria.....	" ".....	"	1 Apr. '13	1,050 00	4 May '81	7 Sept. '07	1 Sept. '08
Jukes, Miss Thirza Ethel.....	" ".....	3-B.	1 Sept. '08	800 00	2 Apr. '75	10 May '07	1 Sept. '08
Lennan, Miss Minnie.....	" ".....	"	18 June '10	750 00	10 Oct. '84	20 Oct. '09	18 June '10
McIlmoyle, Miss Ethel.....	" ".....	"	1 Jan. '14	700 00	4 July '84	3 Sept. '13	1 Jan. '14
Love, Miss Gertrude Arabella.....	" ".....	"	17 July '14	550 00	25 Aug. '93		17 July '14
Blenkarn, William.....	Messenger—Messenger.....		1 Apr. '13	650 00	9 Dec. '65	6 Nov. '11	1 Apr. '13
Morris, Silas John Christie.....	Sorter—Trieur.....		1 Apr. '13	650 00	29 Sept. '79	10 Aug. '11	1 Apr. '13

B.C. LANDS, TONWITES, ETC., BRANCH—DIVISION DES TERRES, EMPLACEMENTS DE VILLES, ETC., DANS LA COLOMBE-BRITANNIQUE.

Maber, Samuel.....	Chief of Branch—Chef de division.....	1-A.	1 Apr. '11	3,300 00	23 Jan. '77	12 July '00	1 Sept. '08
Wyld, Grier.....	Clerk—Commis.....	2-A.	1 May '12	1,750 00	28 Aug. '83	20 Nov. '06	1 Sept. '08
Eastman, Ernest Roy.....	" ".....	"	1 Apr. '14	1,700 00	11 Sept. '73	27 June '04	1 July '06
Proctor, George Stephen.....	Draughtsman—Dessinateur.....	2-B.	1 Sept. '08	1,600 00	8 Aug. '71	1 July '00	1 Sept. '08
Watt, James Thomas.....	Clerk—Commis.....	"	1 Sept. '08	1,400 00	10 Oct. '80	9 Aug. '06	1 Sept. '08
Wright, Miss Lillith Kathleen.....	" ".....	3-A.	1 Apr. '11	1,150 00	24 Feb. '78	13 Mar. '01	1 Sept. '08
Wood, Miss Edith.....	" ".....	"	1 Apr. '11	1,150 00	10 July '82	18 June '03	1 Sept. '08
McIlmoyle, Miss Clemena Jane.....	" ".....	"	1 Apr. '11	1,150 00	31 Dec. '73	11 Nov. '07	1 Sept. '08
Hawley, Miss Olivia.....	" ".....	"	1 Apr. '13	1,050 00	20 Apr. '78	8 Feb. '00	1 July '04
Turner, William Joseph Lorne.....	" ".....	3-B.	30 June '14	550 00	14 Aug. '88		30 June '14
Bourdon, Henri.....	Messenger—Messenger.....		1 Oct. '12	650 00	28 June '83	15 Apr. '12	1 Oct. '12

## REPORT OF THE COMMISSIONER OF DOMINION PARKS.

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The reports of the field officers of the Dominion Parks Service appended hereto recite the particulars of the progress made during the fiscal year ending March 31, 1917. All that it is necessary for me to say in that connection is that despite war conditions, resulting necessarily in a reduction of financial appropriations and a shrinkage of tourist traffic, the year has been one of results exceeding expectations.

As the end of the third year of war approaches and the results of war from the economic and from the human viewpoint become more and more apparent, it seems desirable to take stock of the potentialities of our national park system, to see what place national parks play in the national life and how they can be utilized to the greatest possible advantage in connection with conditions arising out of the war.

The two most important conditions arising out of the war are the gigantic expenditure in the form of money, and the equally gigantic expenditure in the form of human life, vitality and efficiency, in other words man-power.

Both in connection with the development of financial capital and in connection with the development and conservation of national man-power, national parks possess huge and distinct potentialities.

In previous reports attention has been called to the large sums of money spent annually by tourists and to the attractions that Canada's incomparable scenic areas offer to tourist traffic. Canada's mountain wonders, her hunting, her fishing, her recreational areas generally, constitute a national resource, the possibilities of which, from the commercial standpoint in connection with tourist traffic, are almost incalculable. The national parks include many of the most unique and outstanding natural attractions of the Dominion. They are the focal points which stand out in the tourist world.

### EXCEPTIONAL OPPORTUNITIES.

In times when the national income must be increased by every possible means, tourist traffic appears to offer exceptional opportunities for results with a minimum of expenditure. In this connection it is interesting to note that tourist traffic is more and more being given its proper place as a great potential source of wealth and one worthy of the attention of modern governments. The war made France, Switzerland and Italy realize fully for the first time the amount of money which had been brought into their respective countries by foreign visitors. Recent estimates show that prior to the outbreak of hostilities some 300,000 Russians were in the habit of rustivating in Germany and Austria where they left each year something over \$200,000,000. There were 113 seaside resorts along the Baltic and the North sea in 1913, and in that year they entertained 800,000 visitors who left behind nearly \$100,000,000. The annual expenditure of Americans in France was conservatively placed at from \$200,000,000 to \$250,000,000. The Rhine, the show river of Europe, brought in \$100,000,000; the cities of Berlin, Düsseldorf, Dresden and Munich collected many millions more. Berlin alone, it is estimated, realized \$50,000,000 and the revenue of Vienna was probably greater. The closing of the frontiers put an end to this exchange of money and financiers suddenly realized what an important source of revenue had been lost. France, particularly, it is said, has awakened to the importance of tourist traffic. It is recognized that the \$600,000,000 formerly paid by foreign tourists for the right of

8 GEORGE V, A. 1918

trespassing on French soil would constitute a yearly indemnity which would go far towards meeting the enormous liabilities now being incurred. Prominent financiers began some time ago to recommend that even before the cessation of hostilities steps should be taken and an organized effort made to secure a large share of tourist traffic after the war and to provide for its accommodation. In her battlefields France realizes she has a wonderful tourist attraction that will draw people from all parts of the globe. It is said that 120,000 passages have already been booked for Europe by the first available boats to leave after the war. A recent newspaper article reports that the French Government considers the matter of such importance that it has established a new cabinet portfolio known as the National Office of Touring which is working in connection with railway and steamship companies, hotel syndicates and tourist agencies and is rapidly making arrangements to handle the immense traffic expected. Plans are already being made, it is said, to lodge, feed and convey tourists in the devastated districts; hotels are being planned, an automobile service arranged and a central information bureau is to be established in Paris.

#### *National Tourist Bureau.*

The establishment of a national bureau for tourist travel is an example, as I have pointed out before, which might well be followed in Canada. While this country cannot compete with the attractions of Europe on their own ground, it has yet special qualities of its own which even they cannot rival. The immense sums now being added to our national indebtedness make it doubly desirable that this potential source of revenue should be developed to the full. Figures compiled by the Canadian Pacific Railway Company's officials show that 10 per cent of the money formerly spent by tourists in Europe would amount to \$500,000,000, a sum equal to the value of the Canadian wheat crop in 1916. If this amount could be diverted to Canada each year, think what it would add to our national prosperity. In the lists of the season's visitors kept by the various hotels at Banff over forty-five different nationalities are represented, which shows how wide is the field from which the present traffic is drawn and indicates the possibilities which would follow a comprehensive plan of publicity.

The Secretary of the Interior at Washington estimates that in 1915, over \$100,000,000 of the money which formerly went to Europe was diverted to the United States National parks. Their total number of visitors was about 278,000. The number of visitors to the Canadian parks during the same year was 121,533 or about 43 per cent of that which went to the United States parks. On the same basis of expenditure the travel to the Canadian parks would have been worth somewhere in the neighbourhood of \$43,000,000. While the amount of money spent in the Canadian parks or brought into Canada through the parks has never yet been closely estimated it is evident that it reaches each year a very large sum,—that it constitutes a harvest which warrants considerable effort and expenditure to reap. There is probably no field of enterprise in which a small investment brings such a large return. Denver, Col., recently spent \$75,000 in advertising its attractions and expects, it is said, to get \$50,000,000 in return, largely through motor travel.

#### THE AUTOMOBILE.

Within the past few years a new factor has developed which promises to have a very important relation to the question of tourist traffic and that is the automobile. The increasing use of the motor is one of the most striking developments of the last decade. There are reported to be at the present time over 4,000,000 cars in use in the United States. The output for 1916 was approximately 1,500,000 cars or almost double the production of the previous year. The 1917 output is placed at from

## SESSIONAL PAPER No. 25

2,000,000 to 2,500,000 cars. The Canadian production shows a similar increase. In 1915 the different Canadian plants turned out approximately 82,000 cars; in 1916, 110,000, worth approximately \$50,000,000. There are said to be over 75,000 cars in the three prairie provinces alone.

These figures indicate that automobile traffic must be taken into account more and more for the future. Thousands of people now spend their vacations in their cars and they are seeking out every scenic district accessible by good roads. The national parks of both the United States and Canada have had to throw open their gates to this form of traffic. For many years the United States parks were closed to automobiles but as a result of very strong representations from motorists they were all finally thrown open a year or so ago and the resulting increase in travel has been surprising. In 1915 there were 12,563 cars registered at the different parks, in 1916, nearly 20,000 carrying about 80,000 passengers. Mr. Stephen T. Mather, formerly assistant to the Secretary of the Interior now Director of National Parks, says in his recent report:—

“The number of tourists entering the parks in private cars is astonishing when one takes into consideration the fact that they have been open to motor traffic only a very few years and that one of the larger parks has only been open a season and a half. This tremendous increase in automobile travel leads to one conclusion only and that is that in the early future, travel in private machines will overtake the increasing railroad travel and constitute the greater part of all park travel. This makes it incumbent upon the Federal Government to prepare for the great influx of automobiles by constructing new roads and improving existing highways wherever improvement is necessary.”

The Canadian parks have had something of the same experience. For many years Rocky Mountains park was closed to motor vehicles of all kinds. With the building of the first section of the Calgary-Vancouver motor road, restrictions were removed so as to allow automobiles to proceed from Calgary to Banff. A little more than a year ago all roads in the park suitable for motor traffic were thrown open. The result has been that the number of people coming into the park by motor has more than doubled in the past year.

## CANADA'S OPPORTUNITY.

Canada is in a peculiarly favourable position to-day to attract and secure tourist traffic. In the first place she possesses in abundance that which the tourist wants. For the sportsman there is big game from one end of the Dominion to the other; for the fisherman, fishing unequalled in quantity and variety; for the traveller who desires to see nature in its most beautiful and unique forms, attractions unequalled elsewhere.

Owing to the war having stopped the huge volume of travel from the United State to Europe, Canada now has exceptional opportunities for marketing her recreational resources. Though the American, the most constant traveller in the world, cannot go to Europe, he at the same time, through the prosperity the war has brought him, is probably better able to travel than ever before. He must do his travelling practically in his own country or in Canada. And the potential volume of traffic is ample to tax the existing accommodation of both countries.

To summarize, Canada has what the tourist wants. Canada needs as never before, the volume of gold that accompanies tourist traffic. Conditions for securing tourist traffic appear to be exceptionally favourable. It, therefore, seems that by actively taking up the question, Canada can make her recreational resources, both within and without national parks, contribute substantially to the financial needs the war has thrust upon her.

## THE HUMAN SIDE.

Quite apart from tourist traffic and its commercial possibilities, there is another feature of national parks, which has a distinct bearing upon the commercial problem

8 GEORGE V, A. 1918

arising out of the war. It relates to the question of Canada's losses in man power, through the death of thousands of its most virile men in France; to the thousands more who are returning maimed and seriously incapacitated; and in addition to the serious results of the war in the way of impaired nerves and health in regard to those at home. All these conditions directly and seriously affect the efficiency of Canada's man-power. The financial and commercial problems arising out of the war have to be solved by Canada's man-power and the efficiency of her man-power is therefore a matter of the utmost national concern. The only way Canada can meet her financial responsibilities is by increasing her production of wealth. Her natural resources, rich as they may be, can be transformed into money only by the exertions of her man-power. Output is now the most important consideration for Canada and the output depends entirely on man-power. It is felt that national parks and especially what national parks stand for, can contribute materially to the development and efficiency of the Dominion's man-power.

The fundamental purpose behind the establishment and maintenance of national parks is the development and maintenance of rugged, forceful, intelligent manhood. The most common and the most successful treatment a physician prescribes for a patient is an order to go to the mountains or the seaside or the country. And the logic underlying this prescription is the same logic which brought about the creation of national parks. The curative results which follow such an outing are recognized to be due to the recreation in the out-of-doors involved in the trip.

By instinct all people have the desire for and recognize the necessity of recreation. By observation and experience physicians and students recognize that recreation is nature's means for restoring health and the mental and physical alertness and efficiency that go with it. In addition man is by nature an out-of-doors animal and the oftener he can get away from the stone and mortar that civilization has built around him and from the monotony and nerve-wrecking conditions that industry has harnessed him to—the oftener he can get away from these things and get close to nature, the better he becomes physically and mentally and spiritually. A wild strawberry plant can be transplanted into a garden, it will grow, but what of its fruit? In a few years it will lose that peculiar tang which was its soul. Transplant it back to the wilderness and it will regain that tang, will regain its soul. And so it is with man. Separation from nature robs man of much that makes him man. It is true that conditions of modern life make it impossible that he should spend all his life close to nature. Therefore, the next best thing is that he should have opportunities from time to time of getting close to nature of the wilderness and there restoring his stock of vitality and efficiency. National parks have been set aside to ensure the people for all time of areas where they can have access to nature of the wilderness. While for geographical reasons all the people of Canada cannot visit the national parks, there are still vast areas throughout the Dominion as yet untouched by private ownership, where nature of the wilderness awaits the people. As things are now, no one need go far away from home to reach nature. And one of the greatest necessities of the times is that Canada's people should now start making recreation in the great out-of-doors a habit. The occasional visit will be beneficial but it is not enough. It is the habit that must be developed.

#### A LESSON FROM BRITAIN.

In this connection it is interesting to note the experience of Great Britain in regard to the munitions industry. With the outbreak of the war Britain found her industries deprived of thousands of her trained men and yet facing the necessity of an output of munitions undreamed of before. But what she did is well known. How she did it is less well known. At the outset the idea was to make everyone work long hours and Sundays with scarcely any time for rest or recreation. But experience



## SESSIONAL PAPER No. 25

gradually showed that this policy was not bringing the results expected. The maximum results as to sustained output were attained only after it was recognized that output depended upon the health and vitality of the workers and that excessive hours and strain without rest or recreation seriously affected the workers and as a consequence the output.

In 1915 the Imperial Government appointed a committee "to consider and advise on questions of industrial fatigue, hours of labour and other matters affecting the personal health and physical efficiency of workers in munition factories and workshops." This committee made an exhaustive investigation and published the results in a series of reports. The reports covered many recommendations in regard to Sunday work, overtime, and many other matters, all calculated to maintain output at the highest possible point. They pointed out that fatigue and staleness resulted not only in diminished output but in an inferior quality of work; and insisted that in her industrial life Britain must be guided by physiological science and by a proper recognition of the value of rest and recreation.

Canada is in much the same position as Britain was when the war began. She must speed up and maintain at a high standard an output—not of munitions but of natural wealth. And this cannot be done unless recreation is given the attention natural law demands it should be given.

## THE PROTECTION OF WILD LIFE.

The system adopted with regard to the protection of wild life in the parks continues to show gratifying results. Wild animals and birds are increasing in all the parks and losing practically all fear of man. In Rocky Mountains park deer are especially numerous and so tame that they come into the townsites and may be seen in groups on the streets or nosing around back doors looking for tidbits in the shape of food. Mountain sheep and goats, which were formerly met with only in the remote districts and seldom more than five or six together, are now seen in all parts of the park even on the motor road a mile or two from Banff itself and frequently in flocks numbering 50, 75 or 100. In Jasper and Waterton Lakes parks, bear, moose, elk, beaver, grouse, ptarmigan, wild ducks and geese are also increasing noticeably. Apparently the wild life of the Rockies has found out for itself that park boundaries constitute a sanctuary. This was especially evident last autumn in Jasper park when great numbers of wild ducks and geese flew into the park at the opening of the hunting season realizing that within its borders they were safe. In Waterton Lakes park, in the new area recently added, the warden reports that twice as many elk and deer were seen as at any time in the past ten years, and during migration the lakes were covered with wild fowl which remained for a week or two before completing their journey.

## RECREATIONAL VALUE OF WILD LIFE.

Viewed simply from the recreational point of view there is no doubt that the wild life constitutes one of the most important features of the parks. It is of no less consequence than the scenery itself, in fact it may almost be said to be a part of the scenery. Travellers familiar with Switzerland were wont to refer to the loneliness of the Rockies but the sight of half a hundred beautiful bighorn sheep crossing a green upland or a herd of white goat high up on the mountain slope—both of which may be seen by even a casual visitor to the Canadian parks—provides something of the same interest which human habitation supplies in the Alps and gives many people even greater pleasure. For to most people the greatest charm of the Canadian parks is that they provide the opportunity of getting back, in a greater or less degree, to nature, and the nearer it is to primitive nature the more pleasure they feel. This is based on what is now recognized to be one of the fundamental laws of recreation—that the best recreation is that which brings into play the side of our nature which is not exercised



8 GEORGE V, A. 1918

by our ordinary life. To go out into the quiet of woods or mountains produces a feeling of perfect rest and liberation—a true re-creation. In such surroundings many long dormant faculties are brought into play. Almost every sensation travels along old grooves worn in the minds of long past generations. A person finds pleasure in the absolute stillness, in primitive and natural sounds such as the wind in the trees, the falling of water, the wide expanse of landscape or sky, and he renews again his ancient relationship with wild animals, a relationship as old as man himself.

#### WILD PLACES DISAPPEARING.

National parks, it is true, have no monopoly of this form of recreation. In this country there still remain unspoiled, virginal places where nature is practically undisturbed but they are growing fewer each year. Henry Fairfield Osborne, President of the New York Zoological Society, says that travels in Europe as well as over a large part of North America have convinced him that nowhere is nature being destroyed so rapidly as on this continent. "Except within our conservation areas," he says, "an earthly paradise is being turned into an earthly hades and it is not savages who are doing this but men and women who boast of their civilization."

Part of this destruction is of course inevitable. As settlement progresses plant and animal life are bound to disappear. At our present rate of development, even in Canada, the time is not far distant when it will be only in the national parks that the ordinary traveller will be able to find a perfect picture of primitive conditions as they were before the advent of man.

In the Canadian parks it is the aim to protect and preserve the original balance of nature. No attempt is made at underbrushing or clearing except where necessary in the vicinity of townsites or for fire protection purposes and the required roads and trails are built with as little disturbance as possible. The wild life therefore, both animals and birds, find their natural food supply undisturbed and free from all fear of man, they live and breed under the most favourable conditions. It seems probable that they will increase in sufficient numbers to re-stock eventually the whole Rocky mountain area from which they were fast disappearing.

For the student and nature lover, the parks are bound to become more and more the great outdoor school for the study of natural history. They contain more big game species than any other area in the country, and nowhere can their life and habits be studied with such convenience, and a flora which for beauty and variety is almost without an equal in the world.

#### WILD LIFE BOARD.

During the year an important step was taken with regard to game protection matters which come under Federal control throughout the Dominion. This was the appointment of an Interdepartmental Advisory Wild Life Board. The board consists of the following members:—Chairman, James White, Assistant to the Chairman and Deputy Head of the Commission of Conservation; Secretary, Dr. C. Gordon Hewitt, Dominion Entomologist and Consulting Zoologist; D. C. Scott, Deputy Superintendent General of Indian Affairs; Dr. R. M. Anderson, of the Geological Survey; and the Commissioner of Dominion Parks. The board will act in an advisory capacity in all matters concerning the preservation of wild life.

The creation of a special central authority will, it is thought, be a great assistance in the protection of wild life throughout the Dominion. While game matters in the provinces come under their respective governments, there are many questions in which the best results can be secured if the Federal and Provincial authorities act together and the board hopes to be able to secure the co-operation of the different provinces in these matters and also to place at their disposal any special information which it is able to secure through the technical officers attached to the various federal branches.

## SESSIONAL PAPER No. 25

## MIGRATORY BIRD TREATY.

One of the first matters to come before the board was the framing of an act to enforce the provisions of the Migratory Bird Treaty entered into between Canada and the United States. This treaty was formally signed at Washington by Sir Cecil Spring Rice and Mr. Robert Lansing in August, 1916, and ratified by the United States Government in December last. All that now remains to be done is the passing of a bill by the Canadian Parliament sanctioning its provisions and providing for their enforcement. A great deal of the work in connection with this treaty, as well as in the general matter of bird protection throughout Canada, has been done by Dr. Gordon Hewitt, Dominion Entomologist, and it was largely owing to his efforts that the treaty was finally brought to a successful conclusion in so far as Canada is concerned, but in view of the fact that the parks branch is administering other wild-life matters, the carrying out of measures necessary for the enforcement of the treaty has been placed in its hands.

The intention of the convention is to provide much-needed protection for game and insectivorous birds which migrate from one country to the other. It is a matter of common knowledge that for many years past the number of migratory birds has been noticeably decreasing. This has been partly due to unavoidable causes. In this country as settlement has progressed, their breeding places have been gradually encroached upon; the clearing of the land has involved the destruction of the nesting sites of insectivorous birds, the draining of the marshes and the breaking up of the prairies have driven wild fowl from their former breeding and feeding places. Other causes have been the increased use of modern firearms and the ease with which automobiles and power boats enable hunters to cover very large areas in search of good shooting. In the United States, market shooting, spring shooting and the demand for birds for millinery purposes have also caused immense inroads.

Since a great number of both game and insectivorous birds breed in Canada but return to the Southern United States for the winter season, the only way of affording them adequate protection is the introduction of similar legislation throughout both countries protecting them all along the line of migration. Arrangements are being made to have the various state laws amended to agree with the spirit of the convention and negotiations have also been entered upon with the different provinces in Canada with a similar end in view.

It is admitted that immediate action to preserve our insectivorous bird life is absolutely necessary. A recent estimate places the annual damage from injurious insects in Canada to field crops alone at \$125,000,000. This is an enormous sum and it does not take into account the damage done to orchards and forests. Birds are the greatest enemies of insects and in a state of nature they exist in sufficient numbers to keep the latter in check. Especially at this time when the need for conserving our food supply in every possible way is so clearly apparent, it would seem that immediate action should be taken and a determined effort made to restore the balance of nature and to remove this heavy tax upon our agricultural industry.

## WILD LIFE OF THE FAR NORTH.

Another question of first importance to come before the board was the necessity of affording greater protection to the wild life of the far north. Until recently it was considered the remoteness of this area afforded sufficient protection, but in recent years, an alarming decrease in many forms of wild life has taken place. The musk-ox in particular, is perilously near extermination and will disappear unless afforded further protection. Formerly there were herds of musk-ox as far south as Slave lake, but recent Hudson Bay Company reports show that throughout the entire Mackenzie district they have almost disappeared.

8 GEORGE V, A. 1918

## BARREN-LAND CARIBOU.

The barren-land caribou is also in need of additional protection. Although very large herds are yet to be found east of the Mackenzie, to the west along the northern coast from the mouth of the river to Point Barrow in Alaska, they have almost disappeared. In the absence of the caribou the natives have had to move away in search of food, and house ruins all along the coast bear melancholy witness to their departure.

As I have pointed out on previous occasions the barren-land caribou offer a possible source of future meat supply. Their flesh is as palatable and nutritious as venison and their numbers are still estimated in the millions. Under proper protection and with an adequate system of transportation, there seems no reason why they could not be utilized for food in the not distant future. Reindeer are now being shipped from Alaska to the Seattle markets, where they bring from 20 to 35 cents per pound. The Governor of Alaska, in his report for 1916 to the Secretary of the Interior, says that under proper management Alaska may in due time become a source of large meat supply for the United States. The barren-land caribou would furnish an equally valuable source of food for this country and it would seem to be economic folly of the worst kind to permit a food resource of this value to be wantonly and wastefully exterminated. The Wild Life Board has drafted amendments to the existing Northwest Game Act looking towards a more adequate system of protection for barren-land caribou and also for the Arctic white fox and other fur bearing animals in need of protection which will come before Parliament during the present session.

## ELK FROM YELLOWSTONE NATIONAL PARK.

During the year a fine herd of 63 elk was procured through the courtesy of the United States authorities from the Yellowstone National park. The intention is to retain these animals in captivity until they become used to their new conditions and then to liberate them in the Rocky Mountains park in a district where, by closing certain draws in the mountains, they will be completely isolated and soon revert to an absolutely wild state.

## WILD ANTELOPE RESERVE.

I referred last year to the gratification which was felt at the capture of a herd of nearly 50 wild antelope which were secured by building a fence around the area in which they were discovered feeding near Nemiskam, Alta. So far the experiment appears to be entirely successful. The antelope are thriving and show an increase of over twenty for the year, making a total of seventy now in the reserve. This seems to bear out the belief that the failure of previous experiments was largely due to the shock of capture which these little animals are apparently too delicate to withstand.

## ANALYSIS OF HOT SULPHUR WATER, BANFF.

Through the courtesy of the Department of Mines an examination of the hot sulphur waters at Banff, with special regard to their radio-active properties, was made during the winter by Mr. R. T. Elworthy. The results of the analysis showed that the Banff springs contain larger quantities of radium emanation, both in the waters and gases given off, than any others yet investigated in Canada. The radio-activity of the gases evolved from the Banff waters is considerably higher than that of the Mammoth hot springs in Yellowstone park, while the average value of the radio-activity of the waters is very similar. The Banff springs also contain a small amount of radium element, in solution, which renders them permanently active.

The investigations also showed that in temperature and constituents the Banff waters very closely resemble the Kings Well springs at Bath, England, long famous for their therapeutic qualities. Both have calcium salts as the chief substance present

## SESSIONAL PAPER No. 25

and while the Bath waters contain slightly more iron and sodium, the Banff springs show a somewhat higher percentage of calcium and magnesium. The gases evolved from both are almost identical, showing in practically equal amount, the presence of argon and helium, the rare gases of the atmosphere.

## MOUNT EDITH CAVELL.

During the year one of the most striking mountains in Jasper park was set aside as a memorial for Miss Edith Cavell, the English nurse who was executed by the Germans. This mountain, which was formerly known locally as Geikie, although the true Geikie lies to the northwest near the Divide, is of outstanding beauty. It is over 11,000 feet in height, shaped like a great pyramid or as some one has said "like a gigantic, upturned human heart." Its summit is crowned with eternal snows of a dazzling purity. A wonderful tongue glacier, with two extended arms, hangs on the side, and its lower slopes are clothed in a "rose red robe" of heather and millions of bright-hued flowers. The mountain is clearly visible from Jasper and for about 15 miles along the railway to the west and will become, I believe, one of the chief features of interest in the park.

Its solemn grandeur, the majesty of its pure and lonely beauty make it a memorial probably without parallel in the world. They suggest the exaltation of those feelings which rise above the rivalries and hatreds of nations and which all nations must admire. It forms an undying tribute to a sacrifice in the service of humanity. It has been suggested that Swinburne's noble lines should be carved on one of its rocky faces:

"Unto each man his handiwork, unto each his crown,  
The just Fate gives;  
Whoso takes the world's life on him and his own lays down,  
He, dying so, lives."

J. B. HARKIN.

Bebb, Miss Emma Marie.....	Clerk—Commis.....	3-B.	12 Jan. '16	750 00	11 Jan. '90	12 Jan. '16
Macdonell, Miss Jean Laurel Catherine.....	" ".....	"	18 Jan. '17	700 00	1 Jan. '98	18 Jan. '17
Purvis, Miss Mary Margeret.....	" ".....	"	10 July '16	700 00	9 Nov '87	10 July '16
Ritchie, Miss Jane Dingwall.....	" ".....	"	1 July '16	700 00	2 July '96	1 July '16
Fagan, Thomas Edmund.....	Messenger—Messenger.....	"	1 Apr. '10	800 00	2 June '93	1 Apr. '10
Hill, Charles Walter.....	" ".....	"	1 Apr. '14	700 00	5 Aug. '81	1 Apr. '14
Mallette, George Julian.....	" ".....	"	1 Jan. '15	700 00	17 Jan. '96	1 Jan. '15
Chevrier, Alfred Raoul.....	Sorter—Trieur.....	"	1 July '13	750 00	16 May '89	1 July '13
Blatchly, Mrs. Edna Morden.....	" —Trieuse.....	"	1 Apr. '14	750 00	9 Nov. '80	1 Apr. '14
de Silva, Mrs. Laure.....	" ".....	"	1 July '16	700 00	23 Sep. '85	1 July '16

DOMINION PARKS BRANCH—DIVISION DES PARCS FÉDÉRAUX.

Harkin, James Bernard.....	Commissioner—Commissaire.....	1-A.	1 Apr. '11	3,400 00	30 Jan. '75	2 Dec. '01
Williamson, Frank Hedworth Hamilton.....	Clerk—Commis.....	1-B.	1 Jan. '16	2,200 00	15 Mar. '83	1 Sept. '08
Graham, Maxwell Henry.....	" ".....	"	1 Apr. '16	2,200 00	15 Feb. '72	1 Sept. '08
Pinard, Arthur Achille.....	" ".....	2-A.	1 Apr. '09	2,050 00	28 Aug. '72	9 Feb. '92
Johnson, Duncan William.....	" ".....	"	1 Apr. '13	1,850 00	7 Aug. '79	1 Sept. '08
Stronach, Robert Summers.....	Engineer—Ingénieur.....	"	1 Apr. '14	1,800 00	19 May '82	1 Sept. '08
Jacob, Frederick Drummond.....	Clerk—Commis.....	2-B.	1 Sept. '08	1,550 00	20 Mar. '65	1 Sept. '08
Spero, John Ethelbert.....	" ".....	"	1 Oct. '11	1,450 00	19 Jan. '87	1 Oct. '11
Shea, John James.....	" ".....	"	1 Sept. '08	1,450 00	21 Aug. '75	1 July. '08
Courtice, William Howard.....	" ".....	"	1 Sept. '08	1,350 00	22 Apr. '88	1 Sept. '08
Bradley, Henry Alfred.....	" ".....	"	1 Apr. '14	1,100 00	1 Feb. '95	1 Apr. '14
Williams, Miss Mabel Berta, B.A.....	" ".....	3-A.	20 Sept. '05	1,200 00	18 Feb. '78	1 July '04
Beilby, Miss Rosa.....	" ".....	"	1 Apr. '12	1,150 00	21 Mar. '75	1 Sept. '08
von Charles, Miss Fredericka Alexandra.....	" ".....	"	1 Apr. '13	1,100 00	18 Mar. '76	1 Sept. '08
Kennedy, Miss Mary Alison.....	" ".....	"	1 Apr. '13	1,100 00	26 Oct. '84	1 Sept. '08
Barber, Miss Dorothy Maria.....	" ".....	"	1 Apr. '13	1,100 00	4 May '81	1 Sept. '08
Jukes, Miss Thirza Ethel.....	" ".....	3-B.	1 Sept. '08	800 00	2 Apr. '75	1 Sept. '08
Lennan, Miss Minnie.....	" ".....	"	18 June '10	800 00	6 Oct. '84	18 June '10
McIlmoyle, Miss Ethel.....	" ".....	"	1 Jan. '14	850 00	4 July '84	1 Jan. '14
Love, Miss Gertrude Arabella.....	" ".....	"	17 July '14	700 00	25 Aug. '93	17 July '14
Copping, Miss Annie Gladys Evelane.....	" ".....	"	1 July '16	700 00	8 Feb. '97	1 July '16
Blenkarn, William.....	Messenger—Messenger.....	"	1 Apr. '13	800 00	9 Dec. '65	1 Apr. '13
Morris, Silas John Christie.....	Sorter—Trieur.....	"	1 Apr. '13	800 00	29 Sept. '79	1 Apr. '13

B.C. LANDS, TONWSITES, ETC., BRANCH—DIVISION DES TERRES, EMPLACEMENTS DE VILLES, ETC., DANS LA COLOMBIE-BRITANNIQUE.

Maber, Samuel.....	Chief of Branch—Chef de division.....	1-A.	1 Apr. '11	3,400 00	28 Jan. '77	1 Sept. '08
Wyld, Grier.....	Clerk—Commis.....	2-A.	1 May '12	1,800 00	8 Aug. '82	1 Sept. '08
Eastman, Ernest Roy.....	" ".....	"	1 Apr. '14	1,800 00	11 Sept. '73	1 July '06
Proctor, George Stephen.....	Draughtsman—Dessinateur.....	2-B.	1 Sept. '08	1,600 00	8 Aug. '71	1 Sept. '08
Watt, James Thomas.....	Clerk—Commis.....	"	1 Sept. '08	1,450 00	10 Oct. '80	1 Sept. '08
Wright, Miss Lillith Kathleen.....	" ".....	3-A.	1 Apr. '11	1,200 00	24 Feb. '78	1 Sept. '08
McIlmoyle, Miss Clemena Jane.....	" ".....	"	1 Apr. '11	1,200 00	31 Dec. '73	1 Sept. '08
Hawley, Miss Olivia.....	" ".....	"	1 Apr. '13	1,100 00	20 Apr. '78	1 July '04
Turner, William Joseph Lorne.....	" ".....	3-B.	1 Jan. '17	1,000 00	14 Aug. '88	30 June '14
Gilbert, Miss Viola Nina.....	" ".....	"	16 Jan. '17	800 00	26 June '86	16 Jan. '17
Bourdon, Henri.....	Sorter—Trieur.....	"	1 Oct. '12	800 00	28 June '83	1 Oct. '12

## REPORT OF THE COMMISSIONER OF DOMINION PARKS.

J. B. HARKIN.

During the fiscal year 1917-18 the work of the Dominion Parks Branch was extended to cover responsibility in connection with the Northwest Game Act and the Migratory Birds Convention Act.

In connection with the first act which deals with wild life matters in the Northwest Territories it was found that changed conditions required a complete revision of the act. A new act was drafted and was passed in August, 1917. The outstanding features of the new act are the provisions by which both the trapping and fur-trading are put under the license system. Through these provisions it is expected that the great fur resources of the North can be adequately conserved without any interference with reasonable commercial exploitation. Evidence had accumulated that alien interests, without any concern in the future, contemplated introducing large numbers of hunters into the north country with a view to a clean-up, utterly regardless of the effect upon the future, either as regards the wild life or the native population, which is almost entirely dependent upon the wild life for its food supply. The new act provides means of effectually handling such conditions.

The new act also provides special protective measures for musk-ox. Investigation showed that only such measures could prevent the extermination of this characteristic animal of the North.

### BARREN-LAND CARIBOU.

Apropos of the Northwest Game Act it may be a matter of interest that the parks branch made very extensive investigation as to the possibility of utilizing the vast herds of barren land caribou to supplement the meat supply of the Dominion. It is estimated that there are at least 20,000,000 to 30,000,000 caribou in the North. As a food, caribou meat is of first-class quality. The hide when tanned is equal to the best chamois. It is only a question of time when these vast herds will constitute a valuable asset for the Dominion. The only difficulty in the way of the utilization of these animals to-day is one of transportation. After full investigation it was felt that while, undoubtedly, caribou meat could be brought out now at fairly reasonable prices, the meat situation in the Dominion was scarcely such as called for immediate action. The caribou to-day constitute a great meat reserve for the country which can be made available if food conditions should continue to grow worse.

Throughout the preparation of the act and regulations thereunder the department received gratifying co-operation on the part of the Hudson Bay Company, the Northern Trading Company and other interests concerned in the fur trade.

The administration of the new act is being carried on under the direction of the parks service. The actual administration on the ground is being carried on by the Royal Northwest Mounted Police.

### MIGRATORY BIRDS CONVENTION ACT.

The Migratory Birds Convention Act was passed to give effect to the Canadian-American treaty providing for the protection of migratory birds. The treaty was entered into because it was recognized that the bird life of North America could be



9 GEORGE V, A. 1919

effectively conserved only by joint action of the United States, where the birds spend the winter, and by Canada, where the birds breed and spend the summer. The act was passed during the session of 1917 and the regulations thereunder were subsequently drafted and enacted.

Before the treaty was made all the provinces were consulted and all agreed to its principles. The supervision of the administration of the act rests upon the Department of the Interior. It is expected, however, that the actual administration on the ground will be carried on by the provincial authorities. The understanding is that the provinces will amend their legislation whenever necessary to make it conform with the terms of the treaty and that therefore when administering their own laws the provincial authorities will be administering the Federal Act.

So far as the Dominion is concerned it is felt that its most important duty at the outset, at all events, will be to carry on a campaign of education throughout the Dominion in order that the public may be made to realize the necessity of every one interesting himself in the subject of adequate protection of bird life.

#### THE PARKS AND THE WAR.

The parks service has been carried on with an appropriation equivalent to 45 per cent of the appropriation available before the war began. Necessarily, this has resulted in very little more than ordinary maintenance being carried on.

The war has also caused a diminution of tourist traffic from other countries. However, so far as Canadian tourist traffic is concerned, there has been a very substantial increase. This increase was very gratifying when it is considered that, primarily, national parks are maintained in order that the people of Canada may obtain in a maximum degree that recreation and relaxation in the out-of-doors which are essential to the well-being of the individual. The remarkable influx of people from the Prairie Provinces indicated that when our own people have brought home to them the opportunities their own parks offer they are quick to take advantage of them. In the spring of 1917 the department sent a lecturer to the West, who gave illustrated talks on the parks at Brandon and Regina and in almost every picture house in Alberta. The effect of his addresses was: "These are your own parks. They are right at your front door. Come and enjoy them." The result was that though foreign tourist traffic was much below the average, towns like Banff in Rocky Mountains park never before had such a prosperous year. The most satisfying feature of this is the feeling that thousands of our own people obtained the benefits parks have to offer in the form of renewed vigour and efficiency, mental and physical.

A large number of the visitors came to the parks in their own automobiles and camped out during their visit.

The number of automobiles which registered at the Kananaskis gate, Rocky Mountains park, were:—

1916. . . . .	786
1917. . . . .	2,000

This remarkable increase emphasizes the fact that the automobile is destined to be a dominant factor in parks tourist traffic. And it, therefore, also emphasizes the necessity of attention being concentrated on road development in parks.

#### THE BANFF-WINDERMERE HIGHWAY.

During the year negotiations were carried on with the province of British Columbia in regard to the completion of the Banff-Windermere highway. This road, when completed, will provide one of the most remarkable motor routes in the world. A motorist will be able to make a 500-mile round trip, during every mile of which he will either be in the mountains or within sight of them. The route proceeding

## SESSIONAL PAPER No. 25

from Calgary via Banff crosses the main Rockies by Vermilion pass, proceeds down the Vermilion valley to the Kootenay valley; then via Sinclair pass to the Columbia valley. From there it proceeds along the Columbia to the Crowsnest Pass district by which it enters the prairies, proceeding thence to Calgary. Only about 50 miles of new construction remains to open up this wonderful route. The unfinished work is in British Columbia. That province is not in a position to proceed with the work and has made proposals looking towards the Dominion undertaking this work. The direction the proposals have taken is that in return for completing this road the province should grant to the Dominion a 10-mile strip along the highway in British Columbia for parks' purposes, and that an amicable adjustment should be made in regard to the various matters of jurisdiction within Dominion Parks, concerning which there has been conflict as between the province and the Dominion. The subject has been gone into very completely and there appears to be no reason to anticipate anything but an adjustment satisfactory to both the province and the Dominion.

## EDMONTON-VANCOUVER HIGHWAY.

Just as the Banff-Windermere Highway project is capable of completion by the linking up of constructed roads at comparatively little cost there is another automobile highway project which can be developed with very little new construction. This is a highway connecting Edmonton with Vancouver. The consolidation of the Canadian Northern and Grand Trunk Pacific railways from the vicinity of Edson, Alberta, to Moose lake, British Columbia, and the consequent abandonment of a first-class road grade between these points has made the project of a motor-road between Edmonton and Vancouver a practicable proposition. Edmonton is already connected with Edson by highway. From that point the abandoned railway roadbed will carry the highway across the main Rockies into British Columbia. The balance of the route to Vancouver is merely a matter of linking up existing roads. Last autumn Mr. Alfred Driscoll, C.E., an engineer in the parks service made a reconnaissance survey of this route. In his report he says:—

"The distance between Thompson river and Trout creek is 36 miles and this is the only stretch between Edmonton and Vancouver where an entirely new road is to be built, a remarkable fact, when the distance, some 800 miles, and the nature of the country between these two places is taken into consideration."

Mr. Driscoll's estimate of the cost of this highway is \$1,000,000, a remarkably small sum when the results are considered. When it is realized that the twentieth century is to be the century of automobiles as the nineteenth century was the century of railways, and when the huge automobile traffic which originates along the American-Pacific coast is borne in mind, one cannot fail to be impressed with the view that a highway of this kind across the entire Rocky Mountain system will attract touring autoists in tens of thousands and thus provide huge returns upon the actual cost. The abandonment of the railway roadbeds has given Canada an extraordinary opportunity to construct a transmontane motor road. At the request of the Department of the Interior the Department of Railways is leaving the bridges, culverts, etc., on the abandoned roadbed intact. The advantages and the potentialities of this highway are bound to command attention in the years of readjustment at the conclusion of the war.

Another highway proposition which has been given consideration is one which will make available for automobiles the unparalleled scenic splendours of Glacier park made famous by the Canadian Pacific Railway "loops" in the Selkirks. The construction of the Connaught tunnel between Bear creek and Glacier has brought about

9 GEORGE V, A. 1919

the abandonment of the Canadian Pacific Railway tracks between these points, including Rogers pass, which was the highest point in the Canadian Pacific Railway system. With the granting of title to the railway company for the tunnel site, the old roadbed reverts to the Crown. The transformation of the roadbed into an automobile road is necessarily neither expensive nor difficult, and it will give about eighteen miles of highway among the towering peaks and marvellous icefields of the Selkirks.

#### ALIEN PRISONERS' CAMP.

Early in the summer of 1917 the last of the internment camps in the parks was closed down. This was necessitated by the release for industrial purposes of a large proportion of the alien enemies. It was not considered that the comparatively small number remaining would justify the continuation of the working camps and, therefore, the balance of the prisoners were transferred to camps in northern Ontario. While the operation of the alien camps in Revelstoke, Yoho and Jasper parks did not yield as great results as anticipated, nevertheless substantial progress was made on works that could not otherwise have been undertaken during the war.

#### UTILIZATION OF PRISON LABOUR.

In connection with the question of road construction a great deal of investigation has been made upon the subject of the utilization of jail and penitentiary prisoners with the idea that this class of labour might eventually be secured for parks work. This investigation showed that in the United States most satisfactory results have been attained in many of the states in connection with road construction by prisoners.

One of the problems which those who deal with the prisoners have to meet is the provision of suitable employment. It is now generally admitted that it is very injurious to maintain prisoners either in idleness or in unproductive labour. The difficulty is to find employment which is productive and yet which does not compete with free labour.

I understand that in so far as possible Canadian prisoners are given productive work, but I note that the superintendent of Canadian penitentiaries says in his report for 1915:—

“Our officers are obliged to utilize labour at stonebreaking and other industries that are neither desirable nor profitable. For the insufficiency of suitable and productive employment the officers are in no way responsible.”

In this connection I would point out that there is an immense field for the employment of labour in the construction of roads in Canada; that this is work which is undoubtedly both necessary and productive and which at the present time, owing to the shortage of free labour and the high cost of wages, it is almost impossible to undertake.

It is, moreover, the experience of other countries that this form of employment not only does not interfere with the ends of prison discipline but that it is the best which can be adopted, not only economically for the state, but also in securing the reformation of the prisoner.

A considerable part of the roadbuilding in the United States in recent years has been made possible by the use of convict labour and the system is gradually being adopted throughout the entire country. Ten years ago only about 1 per cent of the prison population in the United States was engaged in roadwork; to-day over 12 per cent are so employed and all but two of the states have laws authorizing its use. For the most part the system was adopted primarily, not for economic reasons, but to meet the problem stated by the superintendent of Canadian penitentiaries, the need of finding suitable and productive employment for prisoners. It was found in most

## SESSIONAL PAPER No. 25

states that the great majority of convicts were drawn from the ranks of those engaged in outdoor occupations. Their employment in prison shops had not only the disadvantage of competing with free labour but it resulted in a physical deterioration and prisoners were often unfitted when released to resume their former occupations. Prison farms, although offering suitable and healthful employment, were seldom remunerative and unless very large could not absorb all the available supply of labour. Road construction, on the other hand, is work which is very necessary to the State but which it is often impossible to undertake because of the expense involved. In addition, it has three advantages—it competes less than any other form of employment with free labour, it absorbs all available labour, and it has excellent physical and mental results in so far as the prisoners themselves are concerned.

As the system has been in practice in a number of the states for several years, under widely varying climatic and other conditions, there is now a considerable body of evidence as to its success. New Jersey, Michigan, New Mexico, Arizona, Utah, Texas, New York state, Washington, District of Columbia, Florida and Alabama all use prisoners for road construction.

Virginia employs an average of about 750 men in roadwork and is building macadam roads at a cost of \$3,400 per mile, where free labour had been costing \$4,900 per mile, a saving of \$1,500 per mile. At the last session the legislature appropriated \$250,000 for this division of the highway department. Georgia, employs approximately 5,000 of its prisoners in roadwork, South Carolina, 1,100, Louisiana, from 150 to 300. North Carolina has about 1,500 in 42 counties engaged in this form of labour, and has built 1,500 miles of hard-surfaced roads. Missouri, Greene county, has built 35 miles of standard 14-foot rock road with the aid of county prisoners at a cost of \$1,200 per mile. Colorado has been employing a daily average of about 200 men and has built over 1,000 miles of road, ranking with the best of the world, at about one-third the cost of free labour and an estimated total saving to the State of over \$1,000,000.

The general consensus of opinion appears to be that, properly conducted and operated under suitable conditions, the use of convict labour for this purpose permits of the construction of roads at a considerable saving to the state and offers the best solution with regard to the employment of prisoners.

Mr. G. P. Coleman, State Highway Commissioner for Virginia, said in his last address to the legislature:—

“I can say here, from an experience covering eleven years, that I know of no work on which convicts can be used which is of greater benefit to the state, first, in the upbuilding of the character of the criminal himself, since he soon learns that the work he is doing is of value to the state as a whole, and he takes pride in it as he grows to feel that he is instrumental in the development of the state whose law he has broken; second, in the construction and maintenance of its roads and the consequent development and expansion of the state's resources.”

Mr. J. E. Pennybacker, Chief of the Division of Road Economics, Washington, says in a recent report published by the Department of Agriculture:—

“No field can be selected in which the expenditure of prison labour can be applied with greater benefit to the state for the reason that as a whole there is no greater need than the improvement of highways. It is true that the value of such labour cannot be measured so readily in dollars and cents as the industrial labour within the penitentiary, but there is every reason to believe that, properly conducted, the roadwork may be carried on with as much efficiency as the penitentiary industries, while the former has the additional advantage of requiring no sale or transfer to place it in public use. At this point let it

9 GEORGE V, A. 1919

be noted, that although the convict labour, so applied, may be of very great benefit to the state, it also is of benefit to the convict himself in that it brings to him the realization he cannot grasp in the prison shop grind, that he may be of real importance in life as a producing agent."

The 1914-16 Biennial Report of the State Board of Prison Directors, California, contains the following:—

"During the last year embraced in this report the experiment of working prisoners in the construction and repair of highways in remote and sparsely settled sections of the state has been tried. The result has been gratifying. 188 prisoners from San Quentin and 60 from Folsom prison were at work on roads at the close of the fiscal year.

"The percentage of escapes has been very small. We are advised by the Highway Department that the standard of efficiency is as great, if not greater, than that of free men employed in the construction of highways. It is approximately estimated that the cost of construction is considerably less than one-half of the cost of constructing roads with free labour."

Extract from report of the state warden in connection with the above:—

"At the session of the legislature in 1915, there was passed a law providing for the use of prisoners in the building of highways. Immediately after the law became effective preparations were made for putting it into immediate operation. In September, 1915, through the co-operation of the highway commissioners and your board camps were arranged and men selected for the work. The first group of men, 47 in number, were carefully selected and sent to the camp established for them near Cummings, in Mendocino county. Following, small groups of men have been sent since that time and now, after a year's operation, more than 300 men have been sent to the camps in Mendocino county from San Quentin and out of that number only 5 have been lost by escape. At the present time 188 men are engaged in that work, and I state it conservatively when I say that from the standpoint of work accomplished and standard of conduct maintained, the men have done very well and the system of building highways by prison labour under the honour system is a success. I feel safe in saying that this plan must be developed to an extent that will make it possible to build links in the main highway and also to construct laterals in mountain counties that might remain untouched for years."

Not long ago the United States Department of Agriculture conducted an investigation into the whole question and published its findings in a special bulletin "Convict Labour for Road Work." On page 11 of this report is the following:—

"Of all the advantages that are urged in favour of roadwork as an occupation, that which carries the greatest force is that such work is undoubtedly more healthful than any form of employment which may be provided in a prison shop. Hard manual labour, in close touch with nature and its fresh air and sunshine, is universally recognized as most beneficial while continuous dwelling within doors, with only such periods of exercise as it is convenient to allow, is a most unnatural life for all but a small proportion of the State's prisoners and is observed to have a depressing effect upon the vitality of most of the convicts, with no marked good effects upon any of them."

"Aside from its deleterious physical effect the monotony of prison shop labour has a tendency to reduce the mental activity of the inmate unused to such life, and upon release, many of the members of the professional and mercantile classes find themselves no longer able to keep pace with their more alert

## SESSIONAL PAPER No. 25

competitors. Work on the roads offering as it does, a variety of employment, has no such degenerative mental effect and for this reason, is better than shop work as an occupation for about three-fourths of the prison population.'

Samuel W. Hill, the "Father of American Good Roads" declares:—

"There are four ways by means of which we may accomplish the great dream of a coherent comprehensive, national highways plan; first, through the gift of money for roadbuilding; second, through deferred taxation, bonds; third, through direct taxation; fourth, through convict labour. We in the northwest, have found the fourth most effective. It is most remunerative for the people and the men."

Julian Leavitt, July, 1913:—

"Good roads are a crying necessity in this country. But until now the cost of building them has been prohibitive. We have scarcely begun to realize that in our 1,400 prison houses we have stored the labour power of 100,000 men and boys—truly an army of liberation if applied to a good purpose."

With regard to the efficiency and discipline of these road camps, Thos. B. Tynan, Colorado, said:—

"The discipline at the camps has been as nearly perfect as possible and the effect upon the prisoners has given them superb health and has improved their physical condition. There is nothing to prevent a man's escape, should he be so inclined, yet withal, out of over 1,000 individual men in the past three years the percentage of successful escapes from our camps is less than one per cent."

The chief objections usually presented against this form of employment are:—

1. That it exposes the convict to the public gaze and so tends to harden both the public and the prisoner.
2. That it provides a greater opportunity for escape.
3. That convict labour is less efficient than free labour and that it is difficult to make prisoners work.

The first two objections have no force with regard to the proposal to utilize prisoners on roads in the parks, for the prisoners would be engaged in such remote districts that they would come in contact, practically, with no one, and the character of the country would make escape almost impossible.

With regard to the third there is a difference of opinion. As a rule the efficiency of the convict appears to depend chiefly upon the system adopted and the general spirit of the camp, due principally to the character of the camp officers. In many of the states prisoners are worked on what is known as the "honour system" and this has been found to produce the best results in the north and west. In the south where prisoners are of a lower type, the "guard system" has been more successful, but where the general standards are higher, such as they are in Canada, the consensus of opinion is in favour of the honour system. By this method prisoners who have made good within prison walls are promoted to work on roads and an incentive to work is given by a system of rewards, by a deduction of so many days per month for good work and in some cases by paying them a small wage.

With regard to the comparative efficiency of convict and free labour the Chief of the Division of Road Economics states that this differs according to the class of work and general conditions. The United States Bureau of Labour has secured data in this respect from a large number of sources. In the south prison labour was found to be considerably more efficient than free labour. The New England States reported it about two-thirds as efficient; the Western States about equally efficient.



9 GEORGE V, A. 1919

In this connection Warden Tynan of Colorado said:—

"Personally I believe that our men have worked far more faithfully, harder and with more enthusiasm than the paid labourer would. Not that the paid labourer is to be disparaged, but the convict employed on this class of work has the following special incentives; outdoor life, sunshine, better clothing, better food and more privileges as against the walls and rigid discipline of the prison, and an additional allowance of ten days per month from his sentence, and these incentives spur the men on to work with a degree of zeal, energy and loyalty that cannot be attained by the regular grading or mining camp."

In 1913 prison labour was employed in Arizona for the construction of the Bisbee-Tombstone highway and a comparison of the work accomplished was made with that done by free labour under the same conditions a month later. The report shows that not only was the work done by the convicts at lower unit costs but the actual work accomplished per individual in the same time was greater for convicts than for free men.

Activity.	July, prison labour.			September, free labour.		
	Total quantities.	Quantities per man.	Unit price.	Total quantities.	Quantities per man.	Unit price.
	Cu. yds.	Cu. yds.	\$ cts.	Cu. yds.	Cu. yds.	\$ cts.
Grading—						
Solid rock.....	1,649·7	21·42	1,375 00	981·6	13·82	2 13
Loose rock.....	981·3	12·48	0 59	521·6	7·34	1 51
Boulders.....	829·8	10·78	0 81	937·9	13·21	1 77
Excavation—						
Solid rock.....	389·5	5·06	1 23	219·1	3·09	2 67
Loose rock.....	21·5	0·28	1 16	3·0	0·04	1 66
Concrete.....	143·4	1·86	6 00	65·0	0·91	9 44
Masonry.....	44·4	0·58	5 46	37·0	0·52	6 53
Ditching—						
Solid rock.....	84·1	1·09	1 52	21·7	0·31	2 64
Earth.....	39·8	0·52	0 46	53·0	0·75	0 92
Clearing and grubbing ..	7·0*	0·09*	11 31	3·0	0·04	11 87

\*Acres.

One thing which adds to this form of labour is that it is absolutely dependable. Mr. Pennybacker says:—

"Plans for work can be made in advance with a sure knowledge that the anticipated number of labourers will be on hand to execute them. There can be no tardiness in the convict camp such as is frequently the fault with free labour, and furthermore, the regularity of the force enables a competent overseer to develop the maximum efficiency of each man to an extent that is not possible with shifting free labour."

In connection with its investigations the parks branch during the past winter wrote to some of the states which have been especially successful in the use of prison labour as to their opinion of its comparative efficiency. The replies received were almost invariably favourable but I have room to quote from only one or two.

Extract from letter from Harden Bennion, Secretary of State, Utah, U.S.A., dated February 14, 1918:—

"For the past three years the state of Utah has successfully worked its convicts on the state roads and, while the expense of guarding and camp maintenance is somewhat higher than it would be if the men were confined in the

## SESSIONAL PAPER No. 25

penitentiary, yet the benefit derived from road construction accomplished, and particularly the benefit that comes to the men themselves through their being out in the open engaged in good hard work, is such that we feel abundantly justified and repaid for our efforts.

"I have been more closely associated with this work during the past year than heretofore, but for this season we have found that our prisoners do as much work man for man, as anybody we can hire.

"We have little difficulty in preventing their escape and we find that they take pride in the work accomplished and seem to feel that they are more nearly like other men and, above all, we find the men in a much better condition to be turned loose on their own responsibility at the termination of their sentence; of course, we do not take out into the camps the dangerous or vicious men."

Extract from letter from A. C. McKibbin, Secretary State Highway Board, Missouri, January 29, 1918:—

"The State Highway Department is using honour men from the Missouri State Penitentiary in road construction. This work was commenced several months ago but we have not compiled an extensive report. We have thirty men in each camp. We find the chief advantage lies in the fact that they soon become experienced roadbuilders, and take a very keen interest in their work. For example, we had occasion to make an eight-foot rock cut into nearly a quarter of a mile of solid rock in order to reduce a prohibitive grade. Three experienced miners accustomed to handling steam and air drills were assigned to this work. They accomplished wonders."

## BUFFALO.

The Buffalo herds continue to thrive and expand. The following are the figures:

Park.	No. of Buffalo.
Rocky Mountains.....	8
Buffalo.....	2,920
Elk Island.....	161
	<hr/> 3,089

An increase of 545 over last year.

During the winter of 1917-18 the department abandoned the practice of putting all the animals in Buffalo park into "winter quarters" and feeding them hay. Most of the cows and younger animals were driven into winter quarters but the balance of the herd were left on the range.

It was considered that economy would be served and that at the same time the compelling of the sturdy animals to rustle for themselves in the winter would contribute to their welfare much more than if they were regularly fed hay. Of course the herds on the range were carefully watched. These animals came through the winter in remarkably fine condition. It is now felt that except under abnormal conditions they will at all times be able to care for themselves as well in winter as in summer.

## THE FUNDAMENTAL PURPOSE OF PARKS.

In each annual report in the past I have emphasized the fundamental purpose of national parks—the conservation of human vitality and efficiency in Canada. Each year that the war has been in progress accentuates the necessity of development on the lines that parks stand for. At the outbreak of the war Baden-Powell said that 1935 would show who was really victor. Each nation concerned is now expending lavishly the best it possesses in the way of human resources. The nation which devotes most

9 GEORGE V, A. 1919

attention to the conservation and development of the human resources which it retains is the nation that is going to stand highest in 1935. Speaking in Montreal, in 1908, Viscount Milner said:—

“I say, ultimately greatness and power rest on the welfare and contentedness of the mass of the people. And this involves so much; the physical health of men and women, with all that is necessary to ensure it: air, space, cleanliness, exercise, good houses, good food, and all that is included generally in domestic economy. Physical health first as the basis; then of course trained intelligence, the power of thought and observation, quickness of hand and eye, the development of various forms of industrial skill and so forth.”

Physical health first as the basis, then trained intelligence. It is true there are many agencies that contribute to these but none contribute more than that for which national parks exist, viz., recreation close to nature. While national parks are centres for recreation in the wilderness it is always considered that their influence must be made to extend far beyond those who visit the parks. The purpose of parks is as much to proclaim and teach the necessity of recreation everywhere as it is to provide specific areas for recreation. More and more the public are realizing that no human being can be at his best without recreation, especially recreation close to nature in the out-of-doors. People are recognizing this more perhaps from observation and experience of results than from reasoned analysis. But many acute minds have also analyzed conditions and have shown why man needs this sort of recreation and why this sort of recreation produces the results it does.

At the outset it is obvious that the tremendous commercial and economic changes brought about by civilization have radically changed man's habits of life. To-day everyone feels the everlasting urge of progress. Men of the past worked intermittently. To-day the strenuous life of civilization compels man to live under stress and tension; men by sheer will power and concentration hold themselves down for long hours to desks and machines. Their natural inclinations are inhibited and restrained. This involves continuous mental effort, nervous strain and the constant use of the higher brain centres. Such conditions result in rapid and extreme fatigue and the need for rest and relaxation of some kind becomes imperative. Otherwise there follows lowered vitality, organic and nervous disease or actual physical break-down.

It is interesting to note that investigations by the Life Extension Institute (New York) show that there is a marked decline in the power of modern workers to withstand the strain of present day life. Organic disease of all kinds is on the increase and it is appearing much earlier in life. This means that men are wearing out sooner than they used to, many of them in the prime of life. It indicates that as a race we are growing weaker.

It is possible that in a few hundred years man will have become accustomed to the new demands upon him. In the meantime he has to learn how to keep fit under existing conditions. He does this best by temporary returns to simpler and more primitive behaviour in which the nerve centres in use during his ordinary occupations are not employed. Laughter, games, sport, recreation, rest, are the natural antidotes and the best.

Laughter means relaxation, games are imitations of primitive occupations, the hunt, the chase, or tribal warfare. In these old grooves, nerves, will, and action co-ordinate with so little effort as to produce a sense of pleasure. The older, the more basic, the more primitive the brain patterns used in our hours of relaxation, the more complete our rest and enjoyment. That is why so many brain and city workers feel the absolute necessity of returning each year for a brief time to the wilderness. Man is after all an out of doors animal. For thousands of years he lived by the camp fire and got his living by hunting or fishing. Nature has been his home for countless generations and when the strain and stress of civilization grow too heavy he turns back to her and finds rest, enjoyment, and recreation.

DOMINION PARKS BRANCH—DIVISION DES PARCS FÉDÉRAUX.

Harkin, James Bernard.....	Commissioner—Commissaire.....	1-A.	1 Apr. '11	3,500 00	30 Jan. '75	.....	2 Dec. '01
Williamson, Frank Hedworth Hamilton.....	Clerk—Commis.....	1-B.	1 Jan. '16	2,300 00	15 Mar. '83	15 Apr. '07	1 Sept. '08
Graham, Maxwell Henry.....	" ".....	"	1 Apr. '16	2,300 00	15 Feb. '72	20 July '06	1 Sept. '08
Pinard, Arthur Achille.....	" ".....	2-A.	1 Apr. '09	2,100 00	28 Aug. '72	24 Dec. '89	9 Feb. '92
Johnson, Duncan William.....	" ".....	"	1 Apr. '13	1,950 00	7 Aug. '79	5 June '05	1 Sept. '08
Stronach, Robert Summers.....	Engineer—Ingénieur.....	"	1 Apr. '14	1,930 00	19 May '82	27 Apr. '08	1 Sept. '08
Jacob, Frederick Drummond.....	Clerk—Commis.....	2-B.	1 Sept. '08	1,600 00	20 Mar. '65	10 Apr. '08	1 Sept. '08
Spero, John Ethelbert.....	" ".....	"	1 Oct. '11	1,550 00	19 Jan. '87	3 Oct. '10	1 Oct. '11
Shea, John James.....	" ".....	"	1 Sept. '08	1,550 00	21 Aug. '75	6 June '03	1 July. '08
*Courtice, William Howard.....	" ".....	"	1 Sept. '08	1,450 00	22 Apr. '88	1 July '08	1 Sept. '08
*Bradley, Henry Alfred.....	" ".....	"	1 Apr. '14	1,200 00	1 Feb. '95	16 Mar. '14	1 Apr. '14
Williams, Edward Ronald.....	" ".....	"	1 Apr. '11	1,200 00	26 Jan. '83	9 May '06	1 July '07
Williams, Miss Mabel Berta, B.A.....	" ".....	3-A.	20 Sept. '05	1,300 00	18 Feb. '78	19 Jan. '01	1 July '04
Beilby, Miss Rosa.....	" ".....	"	1 Apr. '12	1,200 00	21 Mar. '75	14 Aug. '06	1 Sept. '08
von Charles, Miss Fredericka Alexandra.....	" ".....	"	1 Apr. '13	1,150 00	18 Mar. '76	19 May '08	1 Sept. '08
Kennedy, Miss Mary Alison.....	" ".....	"	1 Apr. '13	1,150 00	26 Oct. '84	14 Sept. '03	1 Sept. '08
Barber, Miss Dorothy Maria.....	" ".....	3-A.	1 Apr. '13	1,150 00	4 May '81	7 Sept. '07	1 Sept. '08
Lennan, Miss Minnie.....	" ".....	3-B.	18 June '10	1,000 00	6 Oct. '84	28 Oct. '09	18 June '10
McIlmoyle, Miss Ethel.....	" ".....	"	1 Jan. '14	900 00	4 July '84	3 Sept. '13	1 Jan. '14
**Carter, Miss Helen Muriel.....	" ".....	"	12 May '16	850 00	29 Oct. '97	3 Mar. '16	12 May '16
Love, Miss Gertrude Arabella.....	" ".....	"	17 July '14	750 00	25 Aug. '93	.....	17 July '14
Copping, Miss Annie Gladys Evelane.....	" ".....	"	1 July '16	750 00	8 Feb. '97	27 Feb. '14	1 July '16
McCarthy, Miss Katie Mary.....	" ".....	"	1 Jan. '18	600 00	12 Aug. '98	18 Oct. '16	1 Jan. '18
Blenkarn, William.....	Messenger—Messenger.....	.....	1 Apr. '13	850 00	9 Dec. '65	6 Nov. '11	1 Apr. '13

B.C. LANDS, TOWNSITES, ETC., BRANCH—DIVISION DES TERRES, EMPLACEMENTS DE VILLES, ETC., DANS LA COLOMBIE-BRITANNIQUE.

Wade, Augustus Racester.....	Chief Clerk—Premier commis.....	1-B.	1 Apr. '12	2,700 00	4 Feb. '59	1 Apr. '86	26 July '92
Wyld, Grier.....	Clerk—Commis.....	"	1 Apr. '18	2,100 00	3 Aug. '83	20 Nov. '06	1 Sept. '08
Eastman, Ernest Roy.....	" ".....	"	1 Apr. '14	1,930 00	11 Sept. '73	27 June '04	1 July '06
Proctor, George Stephen.....	Draughtsman—Dessinateur.....	2-B.	1 Sept. '08	1,600 00	8 Aug. '71	1 July '00	1 Sept. '08
Watt, James Thomas.....	Clerk—Commis.....	"	1 Sept. '08	1,550 00	10 Oct. '80	9 Aug. '06	1 Sept. '08
Wright, Miss Lillith Kathleen.....	" ".....	3-A.	1 Apr. '11	1,250 00	24 Feb. '78	13 Mar. '01	1 Sept. '08
McIlmoyle, Miss Clemena Jane.....	" ".....	"	1 Apr. '11	1,250 00	31 Dec. '73	11 Nov. '07	1 Sept. '08
Hawley, Miss Olivia.....	" ".....	"	1 Apr. '13	1,150 00	20 Apr. '78	8 Feb. '00	1 July '04
Gilbert, Miss Viola Nina.....	" ".....	3-B.	16 Jan. '17	850 00	26 June '86	3 July '16	16 Jan. '17
Bourdon, Henri.....	Sorter—Trieur.....	.....	1 Oct. '12	850 00	28 June '83	15 Apr. '12	1 Oct. '12

\*On military leave.—En congé militaire.

\*\*On military leave (V.A.D.)—En congé militaire (V.A.D.)

## DOMINION PARKS.

### REPORT OF THE COMMISSIONER, J. B. HARKIN.

Though the war ended during the fiscal year 1918-19 the work in connection with the Dominion Parks Branch necessarily was continued throughout the year on a war basis. In other words there were but two main features, the maintenance of the existing roads, bridges, trails, etc., with the minimum of expenditure; and the preparation of plans for extension of the work in future years. Details with respect to the work done are covered in the reports herewith from the superintendents of the individual parks.

Throughout the year the work in connection with the parks service has been planned and carried out primarily with a view to bringing into Canada a revenue of millions of dollars from foreign tourist traffic. Special attention has been given to this subject because it is recognized that on account of the war debt it is vital that Canada should concentrate on the development of revenue producing activities.

The object lesson of Switzerland and other European countries has taught the world that outstanding scenic and recreation areas are as distinctly natural resources as timber, minerals or agricultural crops, and that trade (tourist traffic) in them is capable of producing national revenue just as successfully as trade in any of the other natural assets.

A celebrated English Alpinist asserted some years ago that Canada's mountain areas are destined to become "the playground of the world." Canada's national parks contain the most attractive portions of the mountains and therefore are the potential "playground of the world."

The planning of parks work has been based upon an analysis of the tourist business of preceding years.

Publicity experts at the Pacific Coast estimate at \$350 the average expenditure of each foreign tourist. But allowing for an expenditure by each foreign visitor to the Rockies of only \$250, and this includes the ever-increasing numbers who remain the entire season and spend many times that much and those who go out with pack trains to the outlying portions of the park who often spend thousands, it is clear that the money brought into Canada by these visitors reaches a very large sum. Take the year 1915, the last year in which owing to war conditions there was a heavy tourist travel from the States. The number of visitors to Rocky Mountains Park in that year was approximately 90,000. Over 65,000 of these visitors were foreigners. Allowing for an expenditure of \$250 each it follows that over \$16,000,000 of foreign money was brought into Canada by the people of other countries who were attracted to this park, which is just the same as if we had exported goods to those countries and received money in return. Now it is interesting to compare the value on an acreage basis of our exports of wheat with what we may call our export in scenery. The acreage of Rocky Mountains Park in 1915 was 1,800 square miles, or 1,152,000 acres, and the value of the foreign tourist traffic it attracted was roughly speaking \$16,000,000. This works out to a per acreage value of \$13.88.

The total wheat exports for the same year were valued (according to figures furnished by the Department of Customs) at \$74,293,548. The number of acres under

10 GEORGE V, A. 1920

follows that additional attention will have to be paid to the construction and maintenance of high class roads and to provision for the accommodation of this class of visitor.

The development in motor travel from the prairies has one most gratifying aspect and that is it indicates that the wonderful natural parks of the Rockies are now within reach of the people of the prairie provinces. In the past it has been a matter of regret that situated as they were, the parks could not serve all the people of Canada. With the coming of good roads and the low priced automobile, they are within easy reach of practically half of the country. They seem destined to become the future playground for a large part of the west.

#### WILD LIFE IN THE PARKS.

The great abundance of all forms of wild life in the parks is very satisfactory. It shows that sanctuaries properly and fearlessly administered will inevitably result not only in the preservation but in the very large increase of all species of wild life. In the parks to-day the visitor does not need to be told that wild life is abundant. He meets with evidence of the fact wherever he goes.

The Bighorn sheep has now become so plentiful that sometimes between two and three hundred are seen in one flock. A motorist along the motor highway west of Banff counted over 350 in one week-end last April. They have also become so tame that cars sometimes have to slow up to let the sheep off the road. The deer, black bear, goat, elk, beaver and game birds such as ptarmigan, grouse, ducks, geese and swans are also increasing rapidly. The acting superintendent of Waterton Lakes Park reports that elk are making their appearance in that district and that moose tracks have also been observed.

There seems no doubt that wild life has discovered for itself that the parks are sanctuaries. Wardens who patrol the outlying districts report that as soon as the hunting season arrives all the wild life they meet is invariably headed in the direction of the park. Ducks and geese sometimes stay several weeks during migrations and one of the wardens in Jasper reports that they are evidently going to make a breeding ground of the marshes in that park.

Despite the great area of the parks, there is very little poaching. This is probably due to the very stringent way in which the regulations have been enforced, but it also indicates that the public soon become educated as to the sanctity of the parks from a wild life standpoint. There is good evidence to show that even the Indians have now become educated with respect to park boundaries, and very few attempted infractions of the regulations have occurred.

We have been very fortunate in developing a game warden service which possesses an enthusiastic love for wild life and the success of the game protection policy is undoubtedly due to their fearless and relentless enforcement of the regulations, as well as to their active pursuit of predatory animals, such as coyotes.

#### BUFFALO.

The buffalo herds in Buffalo and Elk Island parks continue to thrive and to increase in a most satisfactory manner. There are now about 3,800 in the total herd, and I am advised by the superintendent that the number will have reached 4,000 by the fall. This is an increase of 3,300 in ten years, or almost 500 per cent. The herd is now so large that it seems advisable to consider making some disposal of the surplus males and it is probable that the question of placing a certain number on the market for meat purposes will be considered in the near future.

The cross-breeding experiments being carried on by the director of Experimental Farms at Buffalo Park are producing most interesting results, an account of which will no doubt be published by the Department of Agriculture in due time.



## SESSIONAL PAPER No. 25

## DESTRUCTION OF NOXIOUS ANIMALS.

In Buffalo Park during the past few years coyotes have become a serious menace. They have not only been attacking the bird and animal life in the park itself but were using the park for sanctuary purposes after committing depredations on adjacent farms and settlements. Last year it was decided to make use of trained hounds for the purpose of extermination and about 65 coyotes were destroyed, or nearly three times as many as had been secured by traps during the previous year. This method was therefore continued during the present year and 81 coyotes were killed by the hounds. A gratifying feature is, that of this number, 61 were females. The marked superiority of this method is shown by the fact that only two coyotes were captured in traps during the same period.

In connection with the buffalo herd at Elk Island Park, it is interesting to note that these animals, which were originally of the same stock as those in Buffalo Park are developing under the different environment noticeably different characteristics both structurally and as regards colouration. A veterinary inspector of the Health of Animal Branch reports that their heads are finer and the fore and hind quarters better developed. The skins are also much darker, the long hair on the fore part of the body being black and lustrous. This would seem to indicate that the environment at Elk Island, which affords plenty of shade and possibly more nutritious herbage than that found on the plains, or at Wainwright, is producing a type similar to the wood bison of the far north, whose habitat lies among thick forests. (This may have some bearing if a policy of the commercial disposal of the buffalo is developed.)

## PUBLICITY.

Owing to the reduced appropriation the publication of new literature with regard to the National Parks has not been possible. The manuscript for several publications with regard to the fossils, butter flies, moths and other features of the parks have been prepared and are only waiting for the necessary appropriation. It is hoped that their publication will be possible next year as the editions of practically all literature in stock are now almost exhausted.

The most valuable publicity given the parks during the year was that secured through co-operation with the Exhibits and Publicity Branch of the Department of Trade and Commerce, which featured the national parks in its motion pictures and lecture programme. A number of very fine films of the parks were secured by them and sent out through exchanges practically all over the country. These will also appear in the United States and England, France and other European countries as well as in Australia and New Zealand.

The coloured slides, of which the parks' branch now owns a large collection, were almost constantly in demand and a large number of loans were made to church and other organizations. A set of coloured slides was also sent to Dr. McPhail for the use of the Khaki University overseas.

A large number of photographs have been sent out to magazine writers and others and articles and material prepared for the press.

## NORTHWEST GAME ACT.

Regulations under the new Act concerning game in the Northwest Territories were passed in May, 1918, and since that time the Mounted Police have been fully instructed in the new law and are enforcing it with gratifying results. The detailed and valuable reports concerning wild life conditions in the Northwest Territories which are received from the Mounted Police are most valuable and officers and men cannot be too highly commended for the attention paid to this matter.

10 GEORGE V, A. 1920

The new regulations and Act provide a modern system of protection for the valuable fur and game resources. Foreigners are prevented from exploiting the north, by a graded license system which serves the purpose of a deterrent to irresponsible parties and at the same time informs the police, who issue the licenses, of the presence and location of all hunters and trappers.

The license fees are merely nominal for bona fide residents of the Territories and no license is required by native-born Indians, Eskimos or resident half-breeds.

Hunting or trapping on Victoria island is forbidden to license holders.

A system of returns showing number of game or fur-bearing animals taken under each license is provided for and it is hoped that these returns will furnish a valuable guide to the status of the important species in any year.

A small revenue is derived from the license fees, and in the fiscal year 1918-19 the returns, incomplete as yet, amounted to \$1,202.

During the fiscal year 1918-19, \$3,980 was paid in wolf bounties. This amount will doubtless be increased by later returns from the Royal Northwest Mounted Police.

#### MIGRATORY BIRDS' CONVENTION ACT.

On April 23, 1918, regulations under the Migratory Birds' Convention Act were passed and the Act became operative. From this time steps were taken to acquaint the public with the provisions of the Act, as they applied to the various provinces in Canada.

Work was carried on through the summer by Dr. R. M. Anderson, of the Geological Survey, in the investigation of suggested sanctuaries through the western provinces. This proved a large undertaking and further work may be required before deciding on the most suitable ones for this purpose.

Point Pelee was created a Dominion Park on May 29, 1918. As Point Pelee is a noted resting place for many species of birds during migration, it will prove a valuable bird sanctuary. Many southern forms of bird and plant life occur in this locality which are not found elsewhere in Canada.

Towards the end of 1918 an ornithologist was appointed to assist in the administration of the Migratory Birds' Convention Act and the Northwest Game Act.

A comprehensive publicity campaign has been organized; pamphlets have been prepared and distributed to the press, schools and generally throughout Canada; lectures with motion pictures and coloured lantern slides have been prepared for outsiders, or given by members of the staff. A very successful series of lectures was delivered at the Central Canada Exhibition during the fall of 1918.

The response to our campaign has been excellent. The press have reprinted the published pamphlets very generally in all parts of Canada, and the printing of these articles has served as an impetus to correspondence from the public to the press concerning bird protection.

It was found necessary early in the year to organize a Federal warden service to enforce the Act in the Maritime Provinces. Due publicity was given to the inauguration of this service in the press, and in addition the public was warned by posters that the Federal bird law would be enforced.

In Quebec three bird sanctuaries have been created by the provincial and Dominion Governments, viz.: Bonaventure Island, Perce Rock, and the Great Bird Rocks. These will afford protection to the gannets and other sea birds while they are nesting.

Permits to collect birds for scientific purposes were issued to fifteen ornithologists during the year 1918. The number of permits will be greater during 1919, because the publicity campaign has reached many collectors who did not apply for permits during the first year the regulations were in force.

## SESSIONAL PAPER No. 25

## WILD LIFE CONVENTION.

In February, 1919, an important conference on Wild Life Protection, the first of its kind in Canada, was held under the auspices of the Commission of Conservation and the Advisory Board on Wild Life Protection.

Many important points were discussed and the foundation was laid for better co-operation and understanding between the provinces and between the provincial and Dominion Governments. Several prominent wild life conservationists from the United States addressed the meetings and their presence indicated the spirit of co-operation which was developing between the United States and Canada in wild life protection.

## ANTELOPE.

The antelope herd at Foremost, Saskatchewan, is thriving and shows a most satisfactory increase. This is by all odds the most successful effort yet made in Canada to breed antelope in captivity. About three years ago fifty antelope were enclosed and the last count shows about seventy-five.

It is believed that the thriving condition of the herd is due to the fact that the reserve contains all the medicinal plants and mineral deposits required to keep the animals in a healthy condition. Probably these plants and minerals were absent from Buffalo Park and the other reserves where attempts to breed antelope proved unsuccessful.

## AGREEMENT WITH BRITISH COLUMBIA.

An important agreement was made during the year between the province of British Columbia and the Dominion. By it the province granted to the Dominion for parks purposes a strip of land ten miles wide, extending from Sinclair Creek in the Columbia Valley eastward to the Alberta boundary, an area of approximately 350,000 acres.

The Province also agreed to a satisfactory adjustment of the many outstanding conflicts of jurisdiction within Dominion Parks in British Columbia. In return the Dominion undertook to complete the construction of the Banff-Windermere auto road, which when finished will provide one of the most spectacular auto roads on the continent. The agreement is published in detail as an appendix to this report.

## AGREEMENT WITH ALBERTA.

For some years there have been conflicts of jurisdiction as between the Province of Alberta and the Dominion in regard to parks situated in Alberta. An agreement with Alberta was executed satisfactorily adjusting these conflicts. The agreement is printed as Appendix 12 of this report.

10 GEORGE V, A. 1920

Abate- ments. — Fonds de retraite.	Interior: Salaries at Ottawa.		Salary.		Provisional Allowance and War Bonus.	
	Intérieur: Appointements à Ottawa.		Appointe- ments.		Allocations provisoires et bonis de guerre.	
\$ cts.			\$ cts.		\$ cts.	
41,567 46	Brought forward.....		892,917 33		72,874 32	
	<i>Civil Government Salaries—Continued.—Appointements du gouver- nement civil—Suite.</i>					
	Div. 3A—Concluded.					
53 75	H. L. Stewart, 6 m. at \$1,050, 6 m. at \$1,100.....		1,075 00		150 00	
57 50	M. Stewart, 12 m. to Mar. 31.....		1,150 00		150 00	
53 13	A. A. Story, 9 m. at \$1,050, 3 m. at \$1,100.....		1,062 50		150 00	
†	A. Swinburn, 12 m. to Mar. 31.....		1,300 00		250 00	
50 00	E. M. Teevens, 12 m. to Mar. 31.....		1,000 00		250 00	
53 75	M. A. Thomson, 6 m. at \$1,050, 6 m. at \$1,100 (less 28 d.)....		991 66		137 50	
57 50	A. Traveller, 12 m. to Mar. 31.....		1,150 00		150 00	
65 00	M. Tremblay, 12 m. to Mar. 31.....		1,300 00		250 00	
52 50	M. A. Trijanne, 12 m. to Mar. 31.....		1,050 00		150 00	
38 32	E. S. Turnbull, 8 m. to Nov. 30 at \$1,150 (appointed to Trade and Commerce).....		766 64		125 00	
65 00	M. Turnbull, 12 m. to Mar. 31.....		1,300 00		150 00	
53 13	W. J. L. Turner, 9 m. at \$1,050, 3 m. at \$1,100.....		1,062 50		250 00	
*26 00	E. E. Turton, 12 m. to Mar. 31.....		1,300 00		250 00	
57 50	F. Von Charles, 12 m. to Mar. 31.....		1,150 00		250 00	
62 50	F. E. Wain, 12 m. to Mar. 31.....		1,250 00		250 00	
29 12	H. C. Warner, Sept. 24 to Mar. 31 at \$1,000.....		519 42		129 86	
65 00	J. Watters, 12 m. to Mar. 31.....		1,300 00		250 00	
29 17	C. M. Weir, 7 m. to Mar. 31 at \$1,000.....		533 33		87 50	
65 00	H. E. Whitcomb, 12 m. to Mar. 31.....		1,300 00		250 00	
53 13	C. A. Wilson, 9 m. at \$1,050, 3 m. at \$1,100.....		1,062 50		150 00	
65 00	M. B. Williams, 12 m. to Mar. 31.....		1,300 00		150 00	
57 50	M. Wiseman, 12 m. to Mar. 31.....		1,150 00		150 00	
62 50	S. Witten, 12 m. to Mar. 31.....		1,250 00		250 00	
62 50	L. K. Wright, 12 m. to Mar. 31.....		1,250 00		150 00	
	Div. 3B—					
23 67	E. M. Ackland, June 17 to Mar. 31 at \$600.....		473 33			
10 33	T. G. Acres, June 22 to Sept. 30 at \$750.....		206 25			
45 63	J. A. Archambault, 9 m. at \$900, 3 m. at \$950.....		912 50		150 00	
39 38	A. A. Bastien, 3 m. at \$750, 9 m. at \$800.....		787 50		150 00	
30 00	T. M. Beehler, 12 m. to Mar. 31 at \$600 (less 74 d.)....		587 82		150 00	
	W. C. Bethune (on active service).....				150 00	
50 00	B. Blanchard, 12 m. to Mar. 31.....		1,000 00		150 00	
13 32	C. M. Boegel, 5 m. to Mar. 31 at \$800 (less Feb.).....		266 64		62 50	
38 75	A. R. Boulger, 6 m. at \$750, 6 m. at \$800.....		775 00		150 00	
22 31	M. G. Brault, Sept. 10 to Mar. 31 at \$800.....		446 62		150 00	
23 33	J. P. Brown, June 21 to Mar. 31 at \$600.....		466 67			
6 78	L. E. Buck, Jan. 22 to Mar. 31 at \$700.....		135 48			
39 91	S. J. Burgess, 9 m. at \$750, 3 m. at \$800 (including \$28.34 arrear 1917-18).....		790 84		150 00	
23 33	E. F. Burnett, June 21 to Mar. 31 at \$600.....		466 67			
22 50	M. A. B. Burnside, 9 m. to Mar. 31 at \$600.....		450 00			
23 13	B. A. Busby, 3 m. at \$900, 3 m. at \$950 (promoted).....		462 50		75 00	
50 00	D. D. Cameron, 12 m. to Mar. 31.....		1,000 00		150 00	
	H. M. Carter (on active service).....				150 00	
23 83	B. A. Cayer, June 15 to Mar. 31 at \$600.....		476 67			
23 83	M. V. Chapman, June 15 to Mar. 31 at \$600.....		476 67			
37 63	E. W. Clarke, 6 m. at \$800, 5 m. to Feb. 28 at \$850.....		754 11			
40 63	K. G. Cleary, 9 m. at \$800, 3 m. at \$850.....		812 50		150 00	
39 38	Thos. Clifford (on active service).....				150 00	
37 03	C. Copping, 3 m. at \$750, 9 m. at \$800.....		787 50		150 00	
	L. I. Copping, May 26 (noon) to Sept. 30 at \$800, 6 m. to Mar. 31 at \$850 (less June).....		636 79		150 00	
26 25	H. M. Courtney, 7 m. to Oct. 31 at \$900 (promoted).....		525 00		87 50	
39 38	M. A. J. Craig, 3 m. at \$750, 9 m. at \$800.....		787 50		150 00	
38 13	W. J. Cross, 9 m. at \$750, 3 m. at \$800.....		762 50		150 00	
38 13	E. M. Crown, 9 m. at \$750, 3 m. at \$800.....		762 50		150 00	
42 50	M. I. Denison, 12 m. to Mar. 31.....		850 00		150 00	
41 88	A. A. Denny, 3 m. at \$800, 9 m. at \$850.....		837 50		150 00	
16 76	M. E. Deshaies, Oct. 9 to Mar. 31 at \$700.....		334 93		71 77	
30 38	D. H. Dickson, 6 m. at \$750, 6 m. at \$800 (less Oct. 1 to Dec. 16).....		607 23		118 55	
44,002 12	Carried forward.....		938,180 10		80,619 50	

## SESSIONAL PAPER No. 1

<b>Irrigation Surveys—Concluded.—Arpentages d'irrigation—Fin.</b>		\$	cts.
Brought forward.....		182,332	42
<i>Payments to Gauge Height Readers—Paiements pour observations d'étiage.</i>			
Banff District, \$1,573.20; Cardston District, \$1,301.60.....		2,874	80
Cypress Hills, East District, \$488.50; Cypress Hills West District, \$494.60.....		983	10
Jasper, Edmonton District, \$1,960.35; Macleod District, \$1,549.10.....		3,509	45
Saskatoon District, \$361.55; Rating Station, \$722.15.....		1,583	70
International Boundary District, \$427.80; commission and war tax on money orders, \$30.01.....		507	81
		191,791	28
Less—Deductions as below.....		25,995	37
Net expenditure, Irrigation Surveys.....		165,795	91
<i>Deductions—Soustractions.</i>			
F. H. Peters, balance from 1917-18.....		2,750	44
Salaries of substitutes charged to war Appropriation.....		10,698	09
Collections at Calgary for plans, prints, etc.....		1,679	96
Sale of old outfits.....		790	38
Agent, Dominion Lands, cost of inspection re drainage scheme.....		71	00
Forestry Branch, portion of cost of reconstructing dam at outlet of Elkwater Lake.....		150	00
Paterson, W., engineer's expenses running ditch through various sections.....		10	30
Smellie & Lewis, transfer of amount credited on error to revenue.....		136	50
War bonus and provisional allowance.....		9,708	70
		25,995	37
<b>Canadian National Parks—Parcs nationaux canadiens.</b>			
<i>General expenses—Dépenses générales.</i>			
Services at Ottawa (page K-22) \$13,970.28; overpayment to Patriotic Fund, \$2.....		13,972	28
Allan, Killam & McKay, Ltd., Winnipeg, premium on guarantee bonds.....		164	94
Chester, C. L., New York, 1 print "A Mountaineering Memory", 945 ft. at 12c.....		113	40
Collector of Customs, Ottawa, duty and war tax on purchases in U.S.....		45	27
Craig, Robt., Ottawa, 4 leather cases.....		20	00
Crowe Norme Plate & Engraving Co., Chicago, 1,006 auto name plates.....		72	21
Devlin, R. J., Co., Ltd., Ottawa: blocking and mounting 3 buffalo robes, \$22.50; black cloth for lining, 16 yd., \$34; cleaning 6 buffalo heads and 1 wolf skin, \$19.25; repairing buffalo head, \$3.50; uniform cap, \$5.50.....		139	75
Department of Public Printing and Stationery: printing books, forms, etc., \$1,848.17; stationery supplies for Parks Branch, Ottawa, \$771.01; stationery supplies for outside offices, \$607.36; parliamentary publications, \$3.60; "Canada Gazette", 2 subscriptions, \$8.....		3,238	14
May, Geo. & Sons, 2 leather cases.....		30	00
National Association of Audobon Societies, 27 stereopticon slides.....		27	00
Oliver, W. J., Calgary, 24 photographs of parks.....		25	30
Photography, Ltd., photographic work and supplies.....		32	77
Pritchard-Andrews Co., Ltd.: 30 boatmen's badges, \$2.55; 100 chauffeurs' badges, \$3.50; 150 drivers' badges, \$12.75; 200 dog tags, \$5.50; 6 gun sealer punches, \$21; 1,000 wire springs, \$45; stencils, alphabet and figures, 2 sets each, \$14.75; outstanding account, \$3.....		113	05
Rochon, J., taking wool off musk-ox skin, 37 h. at 50c.....		18	50
Thornton & Truman: pipe protectors, 1,000 at 4c., 4,500 at 2c.; outstanding account, \$2.....		132	00
Topley Co.: films and film pads, 28, \$16.20; magnesium, 3 oz., \$16.50; repairing 3 cameras, \$16.65; various photographic supplies, \$18.71.....		68	06
Wolfe & Hine, Edmonton: mounting buffalo heads, 7 bulls at \$30, 1 cow at \$55, dressing 5 robes at \$35; dressing skin of brown bear, \$4; mounting 2 small animals, \$5.50; storage on skins at \$2 a month, \$93.30; crating 9 heads, \$57; packing skins, etc., \$1.....		953	80
Freight and express: American Express Co., \$1.50; Canadian Express Co., \$22.68; Canadian Northern Express Co., \$35.45; Canadian Northern Ry., \$18.11; Canadian Pacific Ry., \$59.71; Dominion Express Co., \$301.11.....		438	56
Telegrams: Canadian Pacific Ry. Co.'s Telegraph, \$564.50; Great North Western Telegraph Co., \$150.41.....		714	91
Small items: labour, \$1.50; loose leaf cover, \$3.40; pad locks, 4, \$2.32; registrar's fees, \$5; repairing flags, \$7.35; stain, 2 qts., \$1.80; stencils, etc., \$12.70.....		34	07
<i>Chief Superintendent's Office, Edmonton—Bureau du surintendant en chef à Edmonton.</i>			
P. C. Barnard-Hervey, chief superintendent, salary, 3 m. to June 30 at \$3,000, \$750; travelling expenses, \$32.45.....		782	45
Miss M. Campbell, clerk, 1 m. to April 30, at \$900.....		75	00
Miss L. Miller, clerk, 29 d. in April.....		57	70
Making blue print, \$2.30; profile paper, 10 yd., \$3.....		5	80
Long distance messages, \$3.10; repairs to telephone, 75c.....		8	85
Telegrams, \$5.50; packing office effects, \$14.90.....		50	40
Carried forward.....		21,344	21

## PART II.

## DOMINION PARKS.

## REPORT OF THE COMMISSIONER, J. B. HARKIN.

The reports of the field officers of the Dominion Parks Service appended hereto recite the particulars of the work carried on during the fiscal year ending March 31, 1920. In all the parks many activities which had necessarily been suspended during the war were renewed and while labour conditions were nowhere normal, considerable progress was made in many lines of work.

## TOURIST TRAVEL.

Tourist travel to all the parks showed a marked increase during the year, the outstanding feature being the revival of travel by rail. As was anticipated the cessation of the war with all its attendant anxieties produced in many the desire for change and recreation and, possibly because of the part she had played in the conflict, hundreds of thousands turned their eyes towards Canada. In consequence the parks had the best season since 1915—the year of the Pacific Coast Expositions. While the total number of visitors did not reach the figures of that or some preceding years, this was due to the fact that large numbers of visitors, instead of remaining for only a few days in the parks, stayed for weeks at a time and many for the entire season. This necessarily limited the available accommodation. During July and August there was scarcely a day in which visitors who wanted to stay over but who had not made reservations in advance, were not compelled to go on to other points. The great hotels at Banff and Lake Louise were crowded practically up to the end of September and the smaller hotels were almost equally taxed. Every cottage available in Banff was occupied and several lodging-houses added tents to their accommodation. Similar conditions prevailed at Emerald Lake, Yoho Camp, Glacier and Jasper.

I think we may look forward to this large volume of travel being maintained and even increased for several years. Limited accommodation and high prices in Europe will undoubtedly restrict travel abroad for some time and in the meantime the attractions of the Canadian Rockies are becoming more widely and favourably known. The most pressing problem would appear to be one of increased accommodation. This is particularly urgent in Yoho and Jasper parks. Both of these parks possess scenery worthy of attracting as heavy a traffic as Banff but owing to the limited accommodation they receive only a small percentage of the travel which they otherwise might. It is greatly to be hoped that first class hotels will be built at both these places in the near future.

While the number of visitors by motor to Rocky Mountains park did not show any marked increase over the large traffic of the previous year, this was no doubt due to the unusually dry season which rendered motoring unpleasant on account of the dust and to the fact that the road to Lake Louise is not yet open. Waterton Lakes park, however, which can be reached only by motor, had the biggest year in its history and Buffalo and Elk Island parks, which are attractive objectives for prairie motorists, also showed large increases.



11 GEORGE V, A. 1921

There are many signs that Canadians as a whole are realizing more clearly the immense potential values of tourist traffic. The campaign inaugurated by the Canadian Manufacturers' Association, the organized efforts being put forth by the provinces of British Columbia and New Brunswick and the Victoria Island Association are important steps in this connection and will undoubtedly help to stimulate travel and thus increase the prosperity of the country. As I have pointed out before, the benefits from tourist traffic are not confined to any one place. Once the stream of travel is set in motion it enriches many shores. Thousands of tourists, for instance, who are attracted to Canada by the fame of the parks, visit Calgary, Vancouver and Victoria en route, and vice versa, many who visit these cities learn of the parks and go on to see them. Figures compiled by the Canadian Pacific Railway passenger department in Winnipeg and published in the *Winnipeg Tribune* of February 9, 1917, showed that 42 per cent of the total number of visitors to the parks in that year, or 43,470, came to Winnipeg and spent there on an average \$10 apiece or \$434,700 in all. Other cities would benefit proportionately.

## TOURIST BUREAU.

In previous reports it has been stated that the magnitude of the revenues involved in tourist travel warrant the creation of a tourist bureau on the part of the Federal Government. In this connection it is interesting to note that the Secretary of the Interior at Washington in his latest report says: "I cannot too strongly recommend the establishment of a travel division in the National Park service. It is vitally important to the nation and our bureau is certainly the place for it because no other agency of the Government is so interested in or closely connected with the touring public as is this service." He goes on to point out the advantages of bringing the tourist industry under Government supervision and says: "A division of touring could co-operate closely with the resorts of the nation, whether in a national park or not, and by issuing promotive literature under the stamp of the approval of the department and the Service could more effectively stimulate travel in the United States than any other agency because its data would not be selfish or exaggerated and would have the confidence of everybody using it."

The Office of Touring, the special bureau organized by the French Government for the development of tourist traffic to France, has developed a very active policy. At the last sitting of the Chamber of Deputies, a bill asking for a vote of 30,000,000 francs was brought down, the money to be applied to the construction of tourist hotels and the purchase of 220 sight-seeing automobiles. France has realized that the development of a large tourist revenue will be one of the easiest means of defraying part of her national debt. She hopes, it is said, to attract not less than a million tourists next year and their expenditure will undoubtedly do much to restore prosperity to the devastated regions.

It is well known that tourist travel follows the line of greatest stimulation. No matter how many attractions a country possesses a large tourist traffic will not develop unless some effort is made to attract it, but as I have pointed out before there is no industry in which a comparatively small investment will bring such enormous returns. Canada possesses undoubtedly, as our orators often declare, a "wealth of natural scenery," but this wealth is at present only potential and whether we draw large revenues from it or not depends entirely upon a policy of development. It seems probable that the time may soon come when the tourist industry will not only be organized but standardized. This has already been done to a certain extent on the continent where the traveller is practically assured of finding certain standards of comfort, cleanliness and refinement wherever he goes. In this country, however, there is still much to be done in the way of establishing standards.

## SESSIONAL PAPER No. 25

There are several reasons why the development of an organized policy respecting tourist traffic should be of interest to Canada to-day. In the first place, she possesses an unfavourable balance of trade, and, as I have pointed out in previous reports, one of the best methods of offsetting an unfavourable trade balance is by bringing foreign money into the country through tourist traffic. She possesses, moreover, on the one hand an immense potential wealth of natural scenery—she has an ideal summer climate; she has over 3,000 miles of salt-water beach; she has her great inland mountain and lake regions; her immense Rocky Mountain area and her Pacific coast, all of them capable of attracting traffic to an almost unlimited degree. She has the raw material, but her industry is not developed. On the other hand, she has a winter climate which causes large numbers of her own people to seek more southern countries for several weeks each year. This loss is inevitable, as is the loss caused by the expenditure of Canadians abroad at other seasons. The organized efforts made by other countries to attract tourist travel tend increasingly to augment both these sources of loss. She can only counteract it by developing her own resources. Undoubtedly the conditions in Canada for such development are right, but the industry needs fostering. As an example of what may be done, take the record of the city of Los Angeles. In 1892 the population was approximately 60,000. It is to-day actually 575,000, and its growth has been almost entirely caused by tourist traffic. Tourist traffic to Canada is capable of a similar development, and as I have said in previous reports, I believe that the best results can be obtained by the creation of a Federal Tourist Bureau working in co-operation with provincial governments, municipalities, motor associations, etc., as well as with the railways and large transportation interests.

## BANFF GOLF LINKS.

Early in the year the services were secured of Mr. Donald J. Ross, who is considered one of the best golf course experts in America, to advise regarding the best plan to be followed in enlarging the Government golf course at Banff from a nine to an eighteen hole course. Complete plans of the layout, showing the position and details of the traps, bunkers, tees, etc., were received in September, and an immediate start was made on the work of enlarging the course. While the work is not yet completed, considerable progress has been made. The course, when finished, will be one of the finest on the American continent. In order to provide the necessary water supply for the links a 4-inch water main was laid early in the year to connect the 6-inch main at the Spray river bridge with the existing distributing main at the golf course.

## NEW BOW RIVER BRIDGE.

During the year plans were prepared for a new bridge over the Bow river at Banff. The old steel structure which is no longer adapted to carry the traffic is to be replaced by a concrete bridge of artistic design which will add much to the general appearance of the town. It is expected that construction operations will be commenced during the coming year.

## CASTLE-LAKE LOUISE HIGHWAY.

Tenders were called and a contract awarded for the final eleven miles of the Castle-Lake Louise highway and the construction of necessary bridges. Clearing and grubbing operations were carried on over the entire contract, but owing to the great difficulty experienced in getting and keeping labour, certain sections were not fully completed when the early fall put an end to operations. The same conditions interfered with progress work on the Mount Revelstoke motor road and the Mount Edith Cavell highway. On the latter road tenders were called and the contract awarded

11 GEORGE V, A. 1921

for the construction of the section from Station 308x00 to Station 864x00. Clearing operations were carried on to Station 630, and grubbing to Station 493. Partial grading operations were undertaken on miles 7, 8, 9 and 10 of the contract. Most of the grading work done was on mile 9, where the steep side-hill is travelled by means of a series of switchbacks. Owing to the early winter the contractor suspended operations on October 31 without completing all the work covered by the contract.

#### ATHABASKA RIVER BRIDGE.

Plans were prepared for a new steel bridge over the Athabaska river near Jasper. Concrete abutments for the bridge were designed and construction started during the winter months. Part of the rock cut forming the approach to the bridge site was also removed during the winter.

#### BANFF-WINDERMERE HIGHWAY.

Under the terms of the agreement entered into between the Government of the Dominion of Canada and of the province of British Columbia, the Dominion agreed to complete the unfinished portion of the Banff-Windermere highway within four years from the conclusion of peace in the Great War in return for the province transferring to the Dominion a strip of land within the province of British Columbia extending five miles on each side of the said highway, and containing an area of approximately 590 square miles. As a considerable portion of the highway constructed by the provincial government had been destroyed by high water, tenders were called by this branch for the reconstruction of the portion of the Sinclair division of the above highway from Station 106 to Station 282, and a contract for the work was awarded. Work on this contract is still in progress, and it is expected this section will be completed during the coming summer. Repair work was also undertaken by the department on portions of the old roadbed above and below the contract work, and log jams which had formed in Sinclair creek and were a menace to the roadway were removed. On the northern or Vermilion end of the road some necessary maintenance work was carried out in order to prevent further damage to the constructed portion of this section of the highway. With a view to future construction work, surveys were undertaken northerly from Kootenay river crossing to the present graded portion of the Vermilion division of the highway. Twenty-eight miles of highway comprising the unconstructed Simpson and Vermilion divisions were located and are now ready for construction operations.

The completion of this road will undoubtedly mean much to the future of Rocky Mountains park. It opens up a loop route through the Canadian Rockies which will contain more scenery to the square mile than probably any other motor road on the continent. The eastern end of the road is already connected via Calgary and Macleod with the road to the United States Glacier park and thence with the National Park-to-Park highway. The western end leads via Cranbrook and Bonner's Ferry to Spokane, where it connects with the Sunset and Pacific Coast highways by direct route to California. What this will mean to the Rocky Mountains park it is difficult to estimate. The through travel on the Columbia river highway is said to be about 500 cars per day. At Crown Point, according to Herbert Nunn, State Highway Engineer for Oregon, the number of machines one way has reached 2,500 in one day. C. A. Collins, Field Secretary of the Evergreen National Highway Association, at the annual meeting of the trustees in Tacoma last summer, presented some interesting figures showing what such motor traffic had meant to California. According to the *Victoria Times* of June 21, 1919, he said: "Four thousand two hundred and forty cars were brought into California in one year over a single road! Allow an average of four passengers to the car, an average daily expenditure per

## SESSIONAL PAPER No. 25

person of five dollars for accommodation and entertainment, figure that these people stayed in California from one to three months, and the result will show why California gives so much attention to road signs, auto clubs and publicity work for tourists."

The Canadian parks can confidently look forward to a steadily increasing volume of motor travel. The director of the United States park service in his report for 1919 comments upon the astonishing increase in the number of cars visiting the United States national parks. In 1918 the number of private cars totalled 53,966. In 1919 there were 97,721 cars, or an increase of nearly 80 per cent. He goes on to say: "The unprecedented travel of the season just closed demonstrated to cities and towns far distant from the national parks that these great playgrounds were the most powerful magnets for motoring tourists that the western country possessed." That the Canadian parks are not inferior in attractions to the United States parks was evidenced by an incident which occurred last summer. A party under the auspices of the *Brooklyn Eagle* made a park-to-park tour by train through several of the United States parks and included the Canadian Rocky Mountains park in its itinerary. At the conclusion of the tour a vote was taken as to the respective merits of the various parks and hotels which they had visited. Here is the result of the vote:—

Most popular park.		Most popular hotel.	
	Vote.		Vote.
Canadian Rockies (Banff, Lake Louise).	24	Banff Springs.	21
Mount Rainier.	19	Glacier Park.	17
Glacier.	17	Canyon (Yellowstone Park).	17
Yellowstone.	9	Chateau Lake Louise.	10
Rocky Mountains.	8	Antlers (Colorado Springs).	9
All National Parks.	3	Old Faithful Inn.	5
Canadian and Glacier.	2	Metropole (Denver).	2
Yellowstone and Glacier.	1	Edgewater Beach (Chicago).	1
Yellowstone and Rainier.	1	Thermopolis (Carter Sanitarium).	1
Rainier and Glacier.	1	Davenport (Spokane).	1
Rainier and Canadian.	1	Many Glacier.	1
		"Pullman Train".	2

As soon as the Vermilion-Sinclair road is completed the Canadian parks will automatically become part of the United States park-to-park system of highways forming a link in what will be an international park-to-park route unequalled in the world. There is, I believe, no room for jealousy between the two park systems. The aims of both are identical and they cannot help rendering an international service to each other. Everything that is done by the United States service to make its parks more attractive will help to swell the tide of travel which will eventually touch the Canadian parks and vice versa every improvement in the Canadian parks will have a similar effect where the United States parks are concerned.

## FOREST PROTECTION.

Owing to the very dry season much anxiety was felt in the parks on account of the danger from fire. A considerable number of fires broke out but owing to the vigilance of the warden service and to the portable fire engines with which all the parks are now equipped, the damage was in almost all cases confined to a small area. One thousand three hundred and ninety-six miles of trails were patrolled by the wardens during the year. The forest protective system now includes:—

## SCENIC PARKS IN ROCKIES.

Wardens.	46
Warden's cabins.	66
Miles forest telephone lines.	256.25
Phones.	66
Portable fire units.	25
Hose.	36,800 feet.
Pyrene and chemical fire extinguishers.	100
Speeders.	14
Gas masks.	22

11 GEORGE V, A. 1921

## EXPERIMENTAL WORK.

A good deal of investigation work was done with regard to the development of further modern equipment for forest protection. The use of gas in the Great War suggested its possibilities as an extinguisher of forest fires. There are several well known gas producing chemicals in liquid form but the problem of transportation in the mountains made it desirable to discover a material in the form of a powder. Experiments were made with tetra-chloride and several other chemicals but it was found that in the open air the resulting gases became diluted so rapidly that their effectiveness was lost.

The branch has developed a chemical mixture of its own known as "Pyrox" in liquid form, which appears to be an excellent fire quencher and possesses great fire-resisting properties as well. The liquid can be readily and cheaply manufactured and the experimental tests which have been made showed it to be most satisfactory for the purpose. It is believed that this liquid can be reduced to powder form and experiments will shortly be made in this connection. The use of chemicals to destroy vegetation along railway rights of way, fireguards, etc., was also investigated and experiments were made with two different liquids—light oil and acid sludge. Both of these it has been shown will successfully destroy vegetation for one year but it is hoped that they will prove effective for two or three years in succession. This would materially lessen the present labour and expense entailed in the ploughing of fireguards particularly at Buffalo and Elk Island parks and would be an additional protection along railway rights of way.

## WILD LIFE IN THE PARKS.

The continued increase of practically all forms of wild life is very gratifying. It affords incontrovertible evidence of the value of sanctuary protection. The superintendent of Jasper park reports that at the close of last season there were estimated to be 5,000 bighorn now within the boundaries of that park. A few years ago their numbers had been reduced to a minimum. As was anticipated there is already a natural overflow into the areas contiguous to park boundaries. Reports received from sportsmen show that there were last fall approximately 2,000 bighorn between the Forks of the Macleod and the Southesk rivers. A British Columbia authority recently estimated that each head of big game was worth \$1,000 on account of the money brought into the province through the wealthy sportsmen it attracted. On this basis the increase from Jasper park into the Southesk country alone has added \$2,000,000 to the value of the natural resources of Alberta. This is only one district. Similar reports are received from practically all hunting areas.

A notable addition was made to the wild life of the parks by the introduction of a herd of elk which was secured through the courtesy of the United States Government from Yellowstone park, Wyoming. Owing to the severe winter the elk herd in that park were threatened with starvation and an opportunity was offered the Canadian Government of obtaining several hundreds of these animals. The elk were brought over in very severe weather but suffered only a small percentage of loss. They were liberated in Rocky Mountains and Jasper parks and up to the present appear to be doing well.

*Buffalo.*—The main herd of buffalo in Buffalo park by actual count numbered 4,868 at the end of the fiscal year. The decrease for the year was 41. Of this number 21 were slaughtered to save valuable heads and hides and 20 died, mostly through injuries caused by fighting. The superintendent reports that fully 50 per cent of the main herd are bulls. As the proper proportion between the two sexes in a buffalo herd is one bull to every two cows, there are at least 1,000 surplus males. This tends to weaken the strength of the herd. During the past year investigations have been



## SESSIONAL PAPER No. 25

carried on with a view to the commercial disposal of the surplus males in the immediate future. A test lot of mounted heads was sold by public auction at the Canadian fur sales at Montreal last March and brought the following prices: Small buffalo bull head, \$300; medium buffalo bull head, \$610; and large buffalo bull head, \$1,025. Owing to the use of limousines by the wealthy there is less demand for robes than formerly; however, good hides dressed for robe purposes sold last March in Montreal for \$120 each.

It has also been demonstrated by practical tests that, when properly treated, excellent sole leather for boots can be made of the buffalo hides. The leather is both strong and flexible and is said to be as valuable as good cowhide. Owing to the present scarcity of leather it appears that buffalo hides will find a ready market for this purpose if unsuitable for robes or other purposes.

Experiments in a small way have also been carried on with a view to the utilization of buffalo wool and the results are very promising. There are some difficulties in manufacture through the admixture of coarse hair but inquiries indicate that existing machinery can be adapted to handle this problem. One of the outstanding features of the yarn is its extraordinary strength. While it may not be suitable for the finer grades of woollen products there seems a good future for it with respect to coarser articles.

The Department of Agriculture in connection with its cattalo experiments, last winter submitted samples of buffalo and cattalo meat of the same age and condition to twenty-six householders with a view to securing opinions as to the palatability of these meats compared with domestic beef. Only three persons declared the domestic beef superior in taste, the preponderance of opinion favouring the buffalo beef. There is reason to believe, therefore, that a market may be developed without great difficulty by the sale of buffalo for meat purposes.

A request was received during the year from Prof. A. N. Shaw, of the Department of Animal Husbandry, University of Saskatchewan, to take six buffalo calves from those born this season with a view to making experiments in domestication. As is well known, attempts to tame buffalo have been successful in individual cases in the past but it is the hope of the Animal Husbandry Department to continue the experiments until a domestic strain has been produced. Permission for the granting of the necessary calves has been granted and the experiments will be watched with much interest.

## PARK FARM.

The farm maintained in connection with Buffalo park continues to prove a financial asset. Last year about 400 acres were seeded to oats and 200 acres were summer fallowed. The season's operations resulted as follows:—

Oat crop—8,000 bushels, of which 1,700 were fed to animals, remaining 6,300 threshed, value 90 cents per bushel. . . . .	\$ 5,670 00
Hay—500 tons at \$35 per ton. . . . .	17,500 00
Total (exclusive 1,700 bushels fed to animals, and straw). . . . .	<u>\$23,170 00</u>

*Antelope.*—The Government prong-horned antelope herd at Nemiskam, Alberta, continues to thrive and attracts many visitors. Under the supervision of a caretaker who keeps fences in repair and patrols the reservation, the original 42 antelope have increased to about 100 and, owing to the fact that the reserve contains practically everything needed in the way of vegetation and saline deposits no indication of disease has appeared. So far as known this is the most successful attempt which has yet been made to breed antelope in captivity.

*Point Pelee Park.*—The results of sanctuary protection are already apparent in Point Pelee park. Although this area was set aside as a park only two years ago it already shows a large increase of animal and bird life. The superintendent reports



11 GEORGE V, A. 1921

an abundance of birds during the season and also large increases during migration. The few coveys of quail which were within the park upon its establishment have increased to over 100. The increase in muskrats is also very satisfactory. During the past year it was estimated that there were 2,000 dwellings with an average of six inhabitants each or a total of 12,000 muskrats in the park. At the prevailing price of skins of from \$4 to \$5 the value of this form of wild life represents over \$50,000. Wild rice and celery are being planted along the shores of the lake with a view to increasing the supply of bird food and efforts are being made to assure the maintenance of normal water levels in order to preserve plant life which forms the food of both wild fowl and muskrats. The destruction caused by carp has also been investigated and steps are being taken to eradicate these fish which have proved to be a dangerous enemy to several forms of wild life.

#### HISTORIC AND PRE-HISTORIC SITES.

The work with respect to the preservation of historic and pre-historic sites, which had been laid aside on account of the war, was resumed during the year and an important step taken in this connection. This was the formation of what is known as the Historic Sites and Monuments Board. In carrying on this work it had been found that the development of a policy covering so wide a field demanded expert knowledge with regard to practically all the historic sites in Canada and their relative value. The Government, therefore, thought it advisable to endeavour to secure the assistance of experts intimately acquainted with these matters and a number of prominent Canadian historians kindly consented to serve as members of an advisory board. The board, which serves without remuneration, is composed of the following: Chairman, Brigadier-General E. A. Cruikshank, Ottawa; Dr. James H. Coyne, St. Thomas, Ontario; Dr. Benjamin Sulte, Ottawa; Archdeacon W. O. Raymond, St. John, N.B.; W. C. Milner, Halifax, N.S.; and the Commissioner of Dominion Parks. The initial meeting was held in Ottawa in October, 1919, when it was decided that the first matter which required to be undertaken was a comprehensive survey of Canadian historic sites. This is now being made by the members. When this survey is completed the board will be in a position to advise the department as to which sites should receive attention from the Federal Government and what work in connection with them should be undertaken. In addition to the meetings of the general board which it is expected will not be held more than once or twice a year, the members resident in Ottawa meet to discuss details when occasion arises.

The co-operation of historical societies and other associations, public libraries, etc., interested in the preservation of the Dominion's historical remains was solicited and the response received was very gratifying. A design for an artistic tablet to be used in connection with the marking of existing remains as well as of a cairn which is to be erected at sites where there are no remains are in course of preparation.

#### PUBLICITY.

Owing to the restricted appropriations no new parks literature was issued during the year. The large number of requests for pamphlets, however, has practically exhausted all our editions and fresh publications will have to be considered for the coming year. Material for some of these is now in course of compilation. A series of news items was furnished for the British press and a number of articles prepared for Canadian and United States magazines. In co-operation with the Exhibits and Publicity Branch of the Department of Trade and Commerce, several films taken in the different parks were edited. Over a thousand coloured slides were loaned for lecture purposes and lecture material supplied. Illustrated lectures were also given by officials of the branch and several hundred photographs and enlargements were sent out on request.

## SESSIONAL PAPER No. 25

## ST. LAWRENCE ISLAND PARKS.

An important addition was made to the St. Lawrence Island parks by the purchase of what was formerly known as Doran's or Sheep island, directly opposite the town of Morrisburg. This island which was originally part of the St. Regis Indian Reserve, had been leased by the Indians for a term of years to a private individual. At the expiration of the lease the Department of the Interior requested the Department of Indian Affairs to be allowed to acquire it for parks purposes. The island has been named Broder park in memory of the late Andrew Broder, who for many years represented Dundas in the House of Commons. It is one of the finest of the island reservations, covering about twenty acres, well wooded and possessing a good bathing beach as well as suitable grounds for baseball and other sports.

## VISIT OF THE PRINCE OF WALES.

His Royal Highness the Prince of Wales with his staff spent five days in the parks on his tour through the West in September. On his arrival at Banff he was met by guards of honour composed of local war veterans, Stoney Indians and Mounted Police. In reply to the address of welcome on behalf of the English residents of the park His Royal Highness said in part:—

"It is a very great pleasure for me to be setting foot for the first time in this wonderful park, and I thank you most sincerely for your cordial welcome which has touched me very much.

"I have long looked forward to seeing for myself the wonderful scenery which surrounds you here. Its grandeur and its beauty have drawn visitors for many years from all parts of the world and I am glad to think that a very large proportion of those visitors has come from the British Isles. The numbers who come here in future must continually increase and you may rely on me not only to spread the knowledge of your attractions in Great Britain when I return, but to come here again myself whenever the opportunity occurs.

"I thank you for your warm expression of loyalty to my father, the King, who retains the happiest memories of his visit to Banff. The Canadian Government has deserved well of the people of Canada in preserving this wonderful district in all its natural beauty for generations to come. I hope that it will be a place of rest and refreshment within the reach of increasing numbers of every class as the years go on."

After the ceremony in English an address of welcome in the Stoney language was presented and His Royal Highness was made a chief of the tribe with the title "Chief Morning Star."

## PROTECTION OF MIGRATORY BIRDS.

The organization for the enforcement of the Migratory Birds Convention Act in Canada was gradually expanded to meet existing conditions during the fiscal year 1919-20. Obviously the localities requiring the most attention were those in which provincial law was not in conformity with the treaty with respect to the protection of migratory birds. For this reason, the first steps in the development of the federal service were taken in the Maritime Provinces. The province of New Brunswick repealed its laws protecting migratory birds about the time that the federal Act was passed. The province of Nova Scotia, although making its law conform with the treaty in other respects, provides no protection for the sea ducks, and although the province of Prince Edward Island concurred in the Migratory Bird Treaty, its laws do not yet conform with that treaty, nor with the federal law.

11 GEORGE V, A. 1921

A temporary staff of migratory bird wardens was organized in the Maritime Provinces in March and April, 1919, consisting of nine full-time and two part-time men. Of these men, one was placed in charge of the migratory bird work in each of the Maritime Provinces. Returned soldiers were appointed to fill all the full time positions and although not specially familiar with the birds, their work was uniformly of an excellent character, both with regard to publicity concerning the law and law enforcement.

During the fall of 1919, examinations were held by the Civil Service Commission, and the migratory bird warden staff in the Maritime Provinces was made permanent.

A staff of honorary game officers is being appointed throughout Canada to serve primarily as an information service. These officers are given the authority of game officers with the power of police constables under the Act and can consequently enforce the law in their own localities. At the present time many districts, especially those surrounding the larger cities, are well patrolled by this staff which now consists of about sixty-three officers and which it is expected will be augmented until there will be a bird friend in practically every community. Persons interested in the protection of our native birds can render a great service by undertaking this work. Although the positions are purely of an honorary nature, these officers are entitled by law to one-half of the penalty imposed in cases which they may bring to court.

The extension of the jurisdiction of the Royal Canadian Mounted Police to the whole of Canada will prove, without doubt, an important factor in the operation of this bird protective measure. Steps are now being taken to have all members of this force made game officers under the Act. The Department of the Naval Service has also offered to assist by having officers on its patrol boats made game officers, and it is believed, that this will prove of great assistance in having the law observed in such localities as the north shore of the gulf of St. Lawrence where many complaints have originated in the past.

Officers of the branch have co-operated with the preventive officer of the Department of Customs, which department is in charge of the enforcement of the prohibition which has been placed upon the import of wild bird plumage. An officer of the Department of Indian Affairs has also assisted the Parks Branch by acting as a game warden on the Quebec Labrador coast.

The trumpeter swan, which has long been considered almost if not quite extinct, was found to be wintering in numbers in southern British Columbia, and a temporary part-time game officer was appointed to see that these birds were unmolested. This appointment has been justified and it is a pleasure to report that the birds have now returned to their northern breeding ground without mishap.

#### PUBLICITY.

The work of educating the public with regard to bird protection has been carried on vigorously during the year. Seven pamphlets in English and six in French have been distributed. In almost all cases these have been sent, first of all to the press throughout Canada and the press have reprinted them so widely that they have reached an enormous number of people. The number of each pamphlet printed has ranged from five to fifteen thousand, and they have been distributed where it was believed they would do the most good. Special care has been taken to place schools and educational institutions on the mailing list. The titles of the pamphlets already distributed are as follows:—

Canada's Feathered Friends, by Hoyes Lloyd.

Vanished and Vanishing Birds, by P. A. Taverner.

Why Canada and the United States Combined to Stop Spring Shooting, by J. H. Fleming.

## SESSIONAL PAPER No. 25

No Spring Shooting Means More Migratory Game, by Hoyes Lloyd.  
The German Badge of Cruelty, by Hoyes Lloyd.  
The Brant of the Atlantic Coast, by Dr. R. M. Anderson.  
Protection of Bird Neighbours, by Hoyes Lloyd.  
Les Oiseaux Amis Du Canada, par Hoyes Lloyd.  
Les Oiseaux Disparus Et Ceux Qui Sont A La Veille De Disparaitre, par P. A. Taverner.  
Pourquoi Le Canada Et Les Etats-Unis Se Sont Unis Pour Mettre Fin A La Chasse Du Printemps, par J. H. Fleming.  
La Prohibition De La Chasse Au Printemps Assure Une Plus Grande Quantite De Gibier Migrateur, par Hoyes Lloyd.  
La Bernache Commune De La Cote De L'Atlantique, par R. M. Anderson.  
Les Oiseaux Savages, par Hoyes Lloyd.

The total distribution to date has been 70,500 numbers and a supply of about 50,000 of these pamphlets still remains in stock.

Whereas the pamphlets have been written from a general point of view, many articles have been furnished the press which deal more particularly with local conditions. These have usually been printed by the press, which has given excellent support in this work whenever asked. Press articles of this nature have been furnished on such subjects as the destruction of crops by geese, the abolition of spring shooting, the band-tailed pigeon of the Pacific coast. An extract of the Canadian federal game laws was furnished the press of Newfoundland so that Newfoundland fishermen would be familiar with and observe this law when in Canadian waters.

A very successful series of lectures was given at the Canadian National Exhibition at Toronto, and the Central Canada Exhibition, Ottawa, and in addition a number of lectures were delivered to various societies. These have all been illustrated by motion pictures or lantern slides, and occasionally both have been used. The total number of lectures by the head office staff of the division during the year has amounted to more than thirty.

In co-operation with the Exhibits and Publicity Bureau of the Department of Trade and Commerce a number of motion picture films have been prepared. These include a very interesting picture of the pelicans and other birds at Johnson lake, Saskatchewan, which has been widely distributed under the title of "A Bird City." Another film, which shows the wonderful results obtained by Mr. and Mrs. J. C. Middleton, of London, Ont., in feeding wild birds will shortly appear under the title "Our Wild Life." The year's work in this line was closed by a picture which may yet prove to be one of the most wonderful of recent wild life pictures. After overcoming great difficulties because of the wariness of the birds, a splendid film showing the trumpeter swans wintering in British Columbia has been taken and is now being prepared for distribution.

## BIRD SANCTUARIES.

Much time has been spent in listing the lands to be included in bird sanctuaries, in the West and, now that these lists are practically complete, the creation and control of this great series of sanctuaries should go forward at once. Sanctuaries to protect the breeding grounds of the waterfowl of North America are certainly essential, especially when we consider that the United States is providing similar sanctuaries to protect our birds on migration and on their winter feeding ground.

## PROSECUTIONS:

Although most of our efforts have been centred upon acquainting the public with the law and with the desirability of protecting our valuable bird life, it has been necessary upon some occasions to take court action against offenders under this law.

11 GEORGE V, A. 1921

Officers of the branch have prosecuted sixteen cases, one of which was appealed, and sixteen fines have been imposed by the court amounting to one hundred and seventy dollars (\$170). Confiscations of arms, plumage for millinery purposes, and game in cold storage amounted to eight lots. It is hoped that the publicity given these cases will have a beneficial effect in preventing further breaches of the law in the same localities.

## INVESTIGATIONS.

Several investigations have been made, because birds were reported to be seriously damaging crops. In one locality, during the spring of 1919, complaints were very numerous against Canada geese, which were said to be destroying the growing fall wheat. After the fall wheat was well grown, an officer of the Department of Agriculture inspected the fields reported to be damaged, and he placed the total damage done by the birds at eight dollars (\$8). Similar complaints were received concerning the band-tailed pigeons in British Columbia. As the band-tailed pigeon is one of the species given special protection by the treaty, it was not felt that any action should be taken upon such complaints, unless the damage caused was really serious. As a matter of fact, one permit was issued to take these birds, but none were taken under it. Fifty-one permits were issued to take migratory birds for scientific purposes, although no birds were taken under many of these permits. It is felt that there are still many persons who do a certain amount of ornithological collecting who have not taken out permits.

## WOOD BUFFALO PATROL.

The wood buffalo patrol to protect these animals in northern Alberta and the adjoining section of the Northwest Territories in the vicinity of Fort Smith was maintained throughout the year. Wolves are apparently a serious menace to this herd, and it is possible that special action should be taken to control them on the Buffalo Range. Trails have been cut and cabins are being built by the officers of the patrol, so that they can make frequent trips through the main area occupied by the buffalo. Their equipment is being improved, and horses furnished them, so that the patrol will have means of transport and remain at a maximum efficiency.

## NORTHWEST GAME ACT.

The Royal Canadian Mounted Police have continued to administer this Act throughout the year, and, now that the inhabitants of the territory have been made acquainted with the provisions of the law, its effect should be felt. Licenses under the Act have been issued, as follows:—

## LICENSES ISSUED.

Resident Hunting.	Trading.	Non- Resident Hunting.	British Trading.	Non- Resident Hunting.	Non- British Trading.
24	34	3	1	5	0
21	71	2	1	6	1
40	10	11	1	5	0
5	18	1	0	1	1
18	9	0	0	5	6
8	3	0	0	0	0
15	8	1	1	0	1
131	153	18	4	22	9

## SESSIONAL PAPER No. 25

The fur returns for the year ending June 30, 1919, are yet far from complete, but the summary reported to date is given below:—

Moose.....	60	Lynx.....	161
Caribou.....	55	Skunks.....	162
Deer.....	4	Ermines.....	2,850
Otter.....	122	Bears.....	430
Beaver.....	3,257	Foxes.....	847
Marten.....	5,539	Red Fox.....	34
Fisher.....	47	Blue Fox.....	24
Mink.....	1,311	Cross Fox.....	5
Muskrat.....	50,578	Silver Fox.....	3
Wolves.....	193	Black Bear.....	15
White Fox.....	4,764	Brown Bear.....	4
Wolverines.....	370		

In connection with the general interest in fur farming, it may be of interest to mention that one such farm is being operated in the vicinity of Great Bear Lake, Northwest Territories. The regulations under the Northwest Game Act have been amended to prevent hunters and trappers other than Indians and Eskimos from operating in Banks Island, Northwest Territories, and a further amendment to the regulations allows the remission of fees for hunting licenses to members of the Royal Canadian Mounted Police when on duty in the Territories.

An amendment to the Act itself has been proposed, as it appeared that the open season for muskrat, north of latitude 64, closed on the 14th day of May, and the new amendment allows this animal to be taken until June 14. At the same time, it is proposed to amend the Act so that similar adjustments in the open season for any species may be made by Order in Council.

The wolf bounty paid during the year amounted to fourteen hundred and eighty dollars (\$1,480), and the gross revenue received for licenses during the year amounted to twenty-four hundred and forty-one dollars (\$2,441).

## MUSK-OX, CARIBOU AND REINDEER.

Further investigations with respect to the caribou and musk-ox emphasized their probable future importance as factors in developing the far north of Canada. The question of preserving and utilizing the millions of caribou as a future meat supply was gone into, as was also the domestication of the musk-ox and the development of musk-ox herds both for food and fur purposes. It is claimed that musk-ox meat is quite as good as prime beef, while the wool, which is somewhat similar to buffalo wool, is well adapted for many kinds of manufactures. The physiological identity of the Barren Land caribou with domestic reindeer also appeared to indicate the possibility of successfully establishing a reindeer industry in the far north. The whole matter involved so many considerations and appeared to be of such importance to a future policy of development that the minister decided to appoint a Royal commission to investigate it. The commission expects to conclude its sittings in the near future and its report will no doubt form a valuable basis for a future policy with respect to the various questions involved.



SESSIONAL PAPER No. 1

Abate- ments Fonds de retraite	Interior: Salaries at Ottawa Intérieur: Appointements à Ottawa	Salary Appointe- ments	Cost of Living Bonus Bonif du coût de la vie
\$ cts.		\$ cts.	\$ cts.
41,990 58	Brought forward.....	908,954 03	125,143 71
	<i>Civil Government Salaries—Continued—Appointements du gouverne- ment civil—Suite</i>		
	<i>Div. 3A—Concluded</i>		
57 50	J. M. Ross, 12 m. to Mar. 31.....	1,150 00	192 00
5 00	E. M. Rowland, April 1-30 at \$1,200 (resigned).....	100 00	
65 00	M. Rutherford, 12 m. to Mar. 31.....	1,300 00	162 00
65 00	M. McKay Scott, 12 m. to Mar. 31.....	1,300 00	162 00
65 00	L. M. Semple, 12 m. to Mar. 31.....	1,300 00	162 00
52 50	J. F. Shaw, 12 m. to Mar. 31.....	1,050 00	337 50
*15 12	M. Shaw, April 1 to Oct. 31 at \$1,300 (less $\frac{1}{2}$ d. in Sept.) (super- annuated).....	756 51	108 00
53 13	A. E. Shea, 9 m. at \$1,050, 3 m. at \$1,100.....	1,062 50	420 00
65 00	E. Shiels, 12 m. to Mar. 31.....	1,300 00	162 00
51 25	W. T. Slade, 6 m. at \$1,090, 6 m. at \$1,050.....	1,025 00	420 00
51 88	E. M. Stafford, 3 m. at \$1,000, 9 m. at \$1,050.....	1,037 50	222 00
65 00	M. Stalker, 12 m. to Mar. 31.....	1,300 00	162 00
56 25	H. L. Stewart, 6 m. at \$1,100, 6 m. at \$1,150.....	1,125 00	192 00
60 00	M. Stewart, 12 m. to Mar. 31 at \$1,200 (less 1 d. in Jan.).....	1,196 77	161 57
3 36	M. W. Stickler, Mar. 6-31 at \$960.....	67 10	29 35
55 63	A. A. Story, 9 m. at \$1,100, 3 m. at \$1,150.....	1,112 50	192 00
52 50	E. M. Teevens, 12 m. to Mar. 31.....	1,050 00	420 00
56 25	M. A. Thomson, 6 m. at \$1,100, 6 m. at \$1,150 less \$158.88 (less half-pay part of Jan., Feb., Mar. and April).....	960 21	177 60
35 04	G. O. Thorburn, Aug. 1 to Mar. 31 at \$1,050.....	700 00	148 00
60 00	A. Traveller, 12 m. to Mar. 31.....	1,200 00	396 00
65 00	M. Tremblay, 12 m. to Mar. 31.....	1,300 00	184 00
55 00	M. A. Trijanne, 12 m. to Mar. 31.....	1,100 00	192 00
65 00	M. Turnbull, 12 m. to Mar. 31.....	1,300 00	162 00
55 63	W. J. L. Turner, 9 m. at \$1,100, 3 m. at \$1,150.....	1,112 50	420 00
60 00	F. von Charles, 12 m. to Mar. 31.....	1,200 00	396 00
65 00	F. E. Wain, 12 m. to Mar. 31.....	1,300 00	396 00
52 50	H. C. Warner, 12 m. to Mar. 31.....	1,050 00	420 00
65 00	J. Watters, 12 m. to Mar. 31.....	1,300 00	396 00
51 25	C. M. Weir, 6 m. at \$1,000, 6 m. at \$1,050.....	1,025 00	420 00
65 00	H. E. Whitecomb, 12 m. to Mar. 31.....	1,300 00	396 00
55 63	C. A. Wilson, 9 m. at \$1,100, 3 m. at \$1,150.....	1,112 50	192 00
65 00	M. B. Williams, 12 m. to Mar. 31 (less half-pay 19 d. in Mar.).....	1,266 80	157 86
60 00	M. Wiseman, 12 m. to Mar. 31.....	1,200 00	162 00
65 00	S. Witten, 12 m. to Mar. 31.....	1,300 00	396 00
65 00	L. K. Wright, 12 m. to Mar. 31.....	1,300 00	279 00
	<i>Div. 3B—</i>		
31 88	E. M. Ackland, 3 m. at \$600, 9 m. at \$650.....	637 50	
23 26	E. V. Alexander, Aug. 2 to Mar. 31 at \$700 (less 8 d. in Dec. and 4 d. in Jan.).....	442 18	159 19
48 13	J. A. Archambault, 9 m. at \$950, 3 m. at \$1,000.....	962 50	244 50
41 88	A. A. Bastion, 3 m. at \$800, 9 m. at \$850.....	837 50	252 00
32 50	T. M. Beehler, 12 m. to Mar. 31.....	650 00	150 00
40 47	W. C. Bethune, May 30 to Dec. 31 at \$950, 3 m. at \$1,000.....	809 29	420 00
50 00	B. Blanchard, 12 m. to Mar. 31.....	1,000 00	222 00
40 63	C. M. Boegel, 9 m. at \$800, 3 m. at \$850 (less $3\frac{1}{2}$ d. in April).....	804 51	150 00
25 89	M. C. Bracken (2C), Aug. 8 to Mar. 31 at \$800.....	518 23	168 00
19 19	H. M. Brady (2C), Aug. 11 to Mar. 31 at \$600.....	383 87	95 97
17 05	L. H. Bramback, Oct. 6 to Mar. 31 at \$700.....	340 57	72 98
41 25	M. G. Brault, 6 m. at \$800, 6 m. at \$850.....	825 00	167 00
29 39	G. W. Brown (2C), May 30 to Mar. 31 at \$700 (less 2 d. in Dec.).....	583 30	209 99
31 88	J. P. Brown, 3 m. at \$600, 9 m. at \$650.....	637 50	150 00
35 00	L. E. Buck, 12 m. to Mar. 31.....	700 00	252 00
19 98	S. J. Burgess, April 1 to Sept. 22 at \$800 (less \$2.75 overpaid in 1918-19, half-pay $4\frac{1}{2}$ d. in April, 2 d. in July and 1 d. in Aug., transferred to Justice Department).....	371 17	105 00
31 88	E. F. Burnett, 3 m. at \$600, 9 m. at \$650.....	637 50	62 50
31 88	M. A. B. Burnside, 3 m. at \$600, 9 m. at \$650.....	637 50	150 00
14 79	G. M. Byrne, Oct. 30 to Mar. 31 at \$700.....	295 41	106 35
50 00	D. D. Cameron, 12 m. to Mar. 31.....	1,000 00	420 00
44,547 93	Carried forward.....	960,287 45	137,496 07

Canadian National Parks—Parcs nationaux canadiens.		\$	cts.
General Expenses—Dépenses générales			
Services at Ottawa.....(Page K-24)		16,429	26
Ailan Killam & McKay, Ltd., Winnipeg, premium on guarantee bonds.....		123	13
American Travel and Hotel Publications (H. J. Phillips), advertising, \$1,000 (detailed under Immigration) one-half charged to Parks.....		500	00
British War Mission, 4 light motor trucks.....		2,120	00
Burrows, Welcome & Co., Montreal, 53 tabloid medium cases at \$17.50.....		927	50
Canadian Fairbanks-Morse Co., Montreal: portable fire fighting outfits, 13 at \$375; accessories for outfits, \$493.80; unlined linen hose, 4,500 ft., \$1,710; couplings, strainers, valves, etc. for hose, \$94.35; suction hose, 10, 8-ft. lengths with attachments, \$84; strainers, 13, \$62.60.....		7,319	75
Canadian Kodak Co., Ltd., Toronto: panorama kodak, \$23.77; 2 A Premo camera, \$27.88; repairs, etc., \$22.29.....		73	94
Continental Storage Batteries, Ltd., Ottawa, 712 L M-A battery.....		47	40
Craig, Robt., Ottawa, leather case, \$4; 33 saddle wallets at \$10.....		334	00
Crowe Name Plate & Engraving Co., Chicago, 170 name plates.....		23	40
Davidson's (Jas.) Sons, sundry lumber.....		24	66
Department of Militia and Defence: generator, \$87; silent chain, \$32; inner sleeve, \$30; outer sleeve, \$30; sundry motor parts, \$257.30.....		436	30
Department of Public Printing and Stationery: printing, \$3,489.53; stationery, \$3,091.79; parliamentary publications, \$33.31; miscellaneous publications, \$139.93.....		6,754	56
Devlin, R. J. & Co., Ottawa, 9 uniform caps and badges at \$6.....		54	00
Fire Equipment, Ltd., Montreal: 16,800 ft. 1½-in. linen hose, \$4,536; 7 expanding tools at \$20; 24 pr. couplings, 1½-in. at \$3; 6 siamese connections at \$8; 18 nozzles, 1½-in. at \$1.15; 6 doz. expanding rings, 1½-in. at \$2.75; 26 hose spanners, 1½-in. at 40c.; 20 doz. washers at 30c.....		4,849	60
Goodyear Tire & Rubber Co., Toronto, 6 S.V. truck tires, 36x5, at \$38.55.....		231	30
Grant-Holden-Graham, Ltd., Ottawa: 9-in. jacks, 50 at \$7.30; 6-in. jacks, 75 at \$4.25; dunnage bags, \$2.....		685	75
Lalond, W. G., Supt. Ottawa Fire Alarm, Gamewell switchboard, complete.....		97	00
Ontario Hughes-Owen Co., Ltd., Ottawa: 13 ft. Philadelphia levelling rod, \$12.60; Cooke engineer transit, split leg, \$244.50; Cooke engineer dumpy level, \$99.50; pocket steel tape, \$2.96; metallic tapes, 50 ft. at 2, \$6.....		365	56
Pritchard-Andrews & Co., Ottawa: 300 badges at 19c.; set steel figures, \$6; 50 nickel plated badges at 40c.; sundry items, \$4.55.....		60	55
Topley Co., Ottawa: folding pocket kodak, with case, \$37.75; metal tripod, \$6.25; films, 12, \$4.80; repairs, \$4.....		52	80
Westboro Garage, Westboro: rebuilding Brantford motor trucks, 3 at \$400; fan assemblies, 3 at \$20; 12 volt hard storage batteries, 2 at \$40; radiator tubes, 50, \$31.26; generator, \$20.40; paint, 9 gal., \$31.50; sundry supplies for motor trucks and repairs, \$175.92.....		1,599	08
Wilkins Bros., Ottawa, cushions for Brantford trucks, 2 at \$20.....		40	00
Wolfe & Hine, Edmonton: mounting buffalo heads, 5 at \$80; dressing robes, 18 at \$35; dressing scalp and cleaning skull, 3 at \$15; dressing calf hide, \$6, packing, etc., \$74.....		1,155	00
Woods Manufacturing Co., Ltd., Ottawa: 50 union jacks at \$4.25; 15 yd. hunting at 57½c.; portable canvas tank, \$19.50.....		240	63
Freight and express: American Express Co., \$1.27; Canadian Express Co., \$223.74; Canadian National Express, \$19.15; Canadian Northern Ry., \$3.39; Canadian Pacific Ry., \$1,293.95; Dominion Express Co., \$278.84; Grand Trunk Ry., \$5.12.....		1,825	46
Telegrams: Canadian Pacific Ry. Co.'s Telegraph, \$615.23; Great North Western Telegraph Co., \$289.64.....		904	87
Advertising: "British Columbia Gazette," \$24.25; "Western Lumberman," Winnipeg, \$19.....		43	25
Payments to 6 members of the Ottawa Fire Brigade for testing hose.....		30	00
Membership fees: American Alpine Club, 1 y., \$15; American Forestry Association, 1 y., \$3.25; Society of American Mammalogists, 2 y., \$6.....		24	25
Small items: cartage, \$11.50; custom duties, \$8.96; drugs, \$19.79; garbage cans, 2, \$8; field stretcher, \$7.50; fireproof liquid, \$8.50; lantern slides, 6 at \$2; trunks, 2, \$17.70; waterglass, 19½ lb. at 10c.; picture frames, 2, \$9; repairs to pump, \$17.40; repairs to camera, \$4.75; overpaid \$4.75 (Cas. Rev. 20-21); sundries, \$17.29.....		166	29
Travelling Expenses—Frais de voyage.			
Thos. Adams, advance for expenses.....		100	00
G. Blyth, travelling expenses.....		34	05
Geo. Comer, East Haddam, Conn., travelling expenses, East Haddam to Ottawa and return, re Royal Commission, Reindeer and Musk Ox.....		85	00
Carried forward .....		47,768	39