

OF THE

# DEPARTMENT OF THE INTERIOR

FOR THE YEAR

1887.

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1888.

## PART VI.

### REPORT OF THE SUPERINTENDENT OF ROCKY MOUNTAINS PARK.

To the Honorable THOS. WHITE,  
Minister of the Interior,  
Ottawa.

SIR,—I have the honor to present the following report on the works carried on in the Park under my supervision.

The topographical survey, under instructions from the Surveyor General, was commenced in February, 1886, and completed in November of the same year. The particulars of these surveying operations are contained in my report to the Surveyor General, dated the 15th day of December, 1886. These particulars it will not be necessary to repeat here. But it may be added that at the close of the survey, in November, an area of over 13,000 acres had been covered during the 270 days occupied on the survey—including the laying out of two town sites—and within this area upwards of 1,100 permanent monuments had been established, and more than 2,500 additional topographical observations of the ground taken, so that the field notes contain a record of every sinuosity of the surface of the ground over the tract included within the extent of the survey.

During the progress of the survey it became evident that an effort must be made to meet the necessities of the public in their desire to reach the sulphur springs. The only means of doing so at that time was over a rough mountain path, cut through the woods from the railway to the springs. This means of access was difficult enough for persons in good health and strength, but extremely difficult, and in many cases impossible for persons laboring under bad health or debility. These facts were represented to you in the spring of 1886, and immediate steps were taken to remedy the state of affairs and remove the existing difficulties, and on the last day of May I received instructions to at once open up a road from Banff station to the Hot Springs.

The chief difficulty presented in the construction of the road was the passage of the Bow River which lay across the line of the proposed road, about midway between the two extremes, and which, at the point of crossing, is about 300 feet wide. The mode of crossing the river hitherto had been by means of canoes and other small craft, and at a point immediately at the head of the rapids which descended to the falls, a total descent of about 70 feet in half a mile, thus making the place where the public crossed extremely dangerous, as a slight accident might hurl the occupants of the boats down the falls to certain death.

The many visitors then coming in to take the benefit of the springs, the daily increasing freshets in the river with the attendant dangers, made it a matter of the first importance that a bridge should be constructed without delay.

The width of the river was about 300 feet, and the depth 20 feet at high water at a point above the rapids selected for the bridge, and it was decided that a bridge on the floating principle was best adapted to the circumstances,—time being the chief element in the problem to be solved.

The few men at my command were at once despatched to the woods to procure the necessary timber, and lumber was ordered from the nearest market.

The first week in June was occupied principally in procuring men, tools and materials for the construction of the bridge, and during the second week it was put

together, floated down the river to its destination, and on the evening of June 12th it was swung round into its place and secured.

A safe and convenient crossing of the river being thus obtained in six working days, and at a cost of \$600, the road towards the station on one side and towards the Hot Springs on the other was pushed on with vigor. The part towards the station—two miles in extent—was over level ground, but presented a very rough surface, covered by a thick growth of scrub. Three bridges over streams on this section were also constructed.

The line of the proposed road towards the Hot Springs presented many difficulties besides the perpendicular ascent along the side of the mountain of some 700 feet in a distance of two and a-half miles.

The growth of timber was extremely thick, and the constant succession of deep ravines or gullies and rock projections rendered it a matter of great difficulty, not only in procuring the best location for the road, but the work of construction was heavy and tedious. The guiding object in the location was to obtain the best possible site for the road, so that the work done would be permanent and not lost by any possible necessity for altering the location at any later date. This object was attained, and any work done since, or to be done in the future, will consist simply in improving it as originally laid down.

The portion of the road from the station to the Bow River was soon opened, and sufficient grading done to put it in a condition suitable for the public traffic; and then the whole available force was placed on the mountain section, from the river to the Hot Springs.

The necessity for this work to be advanced with all despatch was made evident by the many inquiries from a distance by invalids and others desirous of reaching the Springs, and the work was consequently pushed on with vigor, and by the first week in July carriages were passing with ease from Banff Station to the Hot Springs over a very fair road.

Easy access to the Hot Springs being now secured, it became necessary to construct a road to the Cave and Basin, this point being of the greatest interest to the public, as well as utility to persons suffering from rheumatic complaints. This road, one mile in length, was opened by the middle of July.

A road was also constructed leading to the Falls and Spray River, and a branch road from this leading along the bank of the Bow, was also opened during the remaining months of summer.

While these works of construction were in progress, the topographical survey was carried on, and completed for the season by the 25th of November, and at the same time the new town site was laid out on the left bank of the Bow River, at a place well suited for the business transactions of the future inhabitants of the Park.

After the general works of road construction were closed down for the season, a small force of men was employed in driving a tunnel into the Cave, and these men were thus occupied during most of the winter months.

The original mode of access to the Cave was through a natural aperture at the top of the cone forming the roof, and the descent from there to the water level was by a ladder 45 feet in length. The many dangers attending this mode of access, rendered it necessary to devise something better and attended with less risk to the visitor, and indeed persons in a weakly state or delicate health, seeking relief by the virtues of water in the Cave, were prevented from attaining their object by reason of the dangerous means whereby they were required to reach these healing waters.

It was obvious that serious accidents might occur at any time, and the Government held responsible for the consequences, by reason of allowing this shaky and slippery ladder to remain any longer in use. These facts were reported to you, and immediate orders returned to carry out the suggestions of opening a tunnel on a level grade from the terrace below, over which the water from the Cave discharged. This was done during the winter months with success, and added much to the attractions and natural curiosity of the Cave, as well as affording a perfectly level and easy mode of access to its waters.

During the winter the Canadian Pacific Railway Hotel Company commenced operations on their hotel, at a site allotted to them, affording some of the finest scenery in the Park. The work of excavating the foundation proceeded till the opening of the spring of 1887, when the building was commenced.

To enable the Hotel Company to convey their material, &c., to the site of their building, it became necessary to open the avenue leading thereto, and as early as possible a force of men was put on this work. This avenue leads from the Bow Bridge along past the Canadian Pacific Railway Hotel, and will ultimately be extended along the left bank of the Spray River. The work on this avenue consisted in close chopping, grubbing and sufficient grading to make the road serviceable for the heavy teaming which had to pass over it by the conveyance of the building material for the hotel. The final gravelling and surfacing of the road were reserved till such traffic was ended.

This hotel is now about completed and is an ornament to the Park and a credit to the enterprising proprietors.

The roads opened for traffic in the summer of 1886 were constructed during the dry season when no surface water was visible, and the many small springs running down the mountain side were so confined to their natural beds as to make it impossible to form a correct judgment as to the best mode of meeting the drainage question. No attempt was therefore at this time made to complete the road bed, as the labor of doing so would unquestionably be thrown away. The opening of the spring, however, afforded the information required, and the necessary drainage was forcibly indicated before the frost had completely left the ground. The work of ditching and culvert construction was commenced as early as possible on the main avenue from the station to the Hot Spring and from the Bow River to the Cave. These being the chief thoroughfares, every effort was made to render them of first class quality and permanent. Much of the past summer was devoted to this object as its importance was considered as second to none other, and it is satisfactory to know that the public appear to appreciate the efforts that were made for their comfort and safety.

The winter of 1886-87 was one of unusual severity both as regards low temperature and the heavy snow fall, and in consequence of the limited experience of the actions of the river in the Park during the spring freshets, some doubts were entertained as to the ability of the floating bridge to resist the great strain on it which might be expected at high water. The unusual quantity of snow which had fallen in the mountains at the sources and along the valleys of these rivers must necessarily raise them to an unprecedented height; no one here had ever seen such a winter, and consequently no one could anticipate what the results might be when this immense quantity of snow was converted into water and precipitated down these mountain torrents.

To add to these difficulties it was ascertained early in the winter that a large quantity of saw logs was being taken out on the Bow River, and which must inevitably pass this place in the early spring. This was the first time that saw logs had been floated down the Bow River from above this point and no provision had been made for them on any of the bridges, and the probability was that they must suffer the consequences. As regards our floating bridge here, it being of a temporary nature and expected to be required for only one year, it was thought that it might be sustained for the short period necessary for the passage of the logs, and this conjecture would have proved correct had not an accident occurred, quite independent of the saw logs, to destroy its usefulness for a time.

As the water rose in the river means were taken to strengthen and secure the bridge, and an opening made for the passage of logs and other floating timber, and men stationed on the bridge day and night to clear the logs and pass them through the opening left for the purpose. By this means the floating timber of all descriptions was being readily discharged through the bridge when an unfortunate accident occurred. A heavy raft of timber loaded with cord-wood had been brought down the river and moored some distance above the bridge. This mass of timber, much

heavier than the bridge itself, broke from its moorings and swept down the river with the terrible velocity of the Bow River, at its even greater than usual flood height, and struck the floating bridge, end on, about the middle. This shock did not break the bridge nor disturb a plank, but the large wire cable which moored it at one end parted, and the bridge swung round on the cable at the other end and landed at the left bank without sustaining any further damage than the breaking of the cable.

Of course this unfortunate accident made it necessary to resort to what canoes and other craft could be procured for the passage of the river, but no time was lost in the endeavor to restore the bridge to its place, and the only delay was caused by the want of the necessary appliances at hand to warp the structure upstream. Messengers had to be sent to Calgary and even farther to procure rope, blocks and tackle, and precious days were lost in this way. The first attempt failed through the breakage of the ropes, and after stronger cables were procured and the bridge thoroughly strengthened it was successfully replaced in its original position, nine days after it was carried away.

The piers for the Bow Bridge were commenced as early as possible in the spring of 1887, and had the season between the going out of the frost and high water been as long as in other years, the time would have been ample for the work necessary for the completion of the masonry, but the lateness of the spring and the sudden rise and the unusual height of the river before the end of May scarcely sufficed to complete the piers, and the water was near its full height before the contemplated rip-rap round their bases could be built. In consequence, therefore, of the exposure of the piers to this severe trial in their unfinished state, added to the green state of the mortar which had not time to set, a very unsatisfactory combination of circumstances ensued, and it could hardly be expected from the immense quantity of timber of various kinds floating down the river with great velocity that the piers could escape from injury. As it was, a large accumulation of drift timber, saw logs, and whole trees with extended roots, lodged against the piers, and soon began their work of destruction by excavating under the foundation of the up-stream end.

Preparations were made as expeditiously as possible to remove the timber from the piers and build in the rip-rap, but during the night the work of destruction on one pier was completed and a portion of its up-stream end fell. No time was lost, however, protecting the other piers; the accumulated timber was removed and a large quantity of rip-rap built up, and then safely secured, and though the river rose higher afterwards still no further damage was done. The superstructure had been ordered early in the winter and was expected to be ready for erection in May, but owing to delays in the manufacturing, it did not arrive for some months later, but as the water was unusually high at the time the bridge superstructure was expected and remained high much longer than contemplated, it would have been difficult, indeed impossible, to have erected the bridge at an earlier date than July, when its erection began.

No false work could have stood the shock of the floating timber which swept down the Bow, particularly at the site of the bridge where the current runs, at high water, at nearly 20 miles an hour.

The bridge was completed and opened for traffic on the 19th of October.

The abutments of the Spray Bridge were built in the autumn of 1886, but not fully completed, as it was thought advisable to ascertain more definitely the probable height of the spring floods and the action of the ice in winter in this river, which from the previous year's experience was known to be of a very treacherous and fluctuating character. The superstructure was not erected till the following summer, and in the meantime it was found advisable to raise the abutments some two feet higher to insure a full clearance for the ice and other floating substances. In consequence of the raising of this bridge the approaches had to be raised in proportion, and the additional expense consequent thereon incurred.

When the improvements at the Cave were first contemplated it was thought that the driving of the tunnel through into it, the deepening of its pond, and clearing of the

rough rocks from the bottom would constitute the whole of the work necessary, but it was soon found from the nature of the rock which composed the sides and bottom that a very treacherous substance had to be dealt with, and every precaution would be necessary to insure success in any works carried out in connection therewith.

The whole Cave is a deposit principally of carbonate of lime, and when the natural dam across the outlet was taken away to enable the workmen to remove the fragments of rock projecting up from the bottom and sides, it was found that extreme care would be necessary to protect the Cave from destruction by the exposure of new inlets of water and the undermining action of these streams. As the fragments of rock were removed new apertures were visible, and streams of quicksand appeared which were before hidden. It was therefore obvious that the work now begun must be carried on in the most thorough manner, and nothing left to the chance of accident in the future that foresight could provide against. It was therefore decided that the work must be done and completed once for all, and the necessary steps were taken.

The whole area of the pond was completely cleared of loose and projecting rocks; the deposit of sand and gravel forming the natural dam was removed and a good substantial wall of masonry constructed surrounding the whole pond. By this means the pond was enlarged to nearly three times its original dimensions and deepened to about four feet. A solid masonry wall was substituted for the natural dam with an iron outlet pipe with valve to regulate the height of the water. The whole of the masonry was laid in Portland cement and the inside face of the wall plastered with a thick coat of the same.

It is sufficiently evident that nothing short of the most thorough treatment of this work would have been justifiable. Accidents might have occurred of a very disastrous nature if the work had stopped short of thorough completion, and it is satisfactory to know that the improvements, thus affected, are amply appreciated by all who have inspected or indulged in a plunge in these waters.

From the exposed nature of the "Basin" no doubt could be entertained of the necessity for putting it in a condition that the public could avail themselves of its use. Unlike the Cave, it is opened and exposed, with no protection for the bather from cold or the exposure of the person. Its formation in other respects is similar to the pond in the Cave. The rock is of the same treacherous character, and required extreme care in its treatment, and it was soon found that the same precautions would be necessary as were taken in the case of the Cave. An immense quantity of rubbish had accumulated at the bottom, which on being stirred up by the bather and held in suspension, the waters became no longer transparent, but formed a mass of semi fluid, filthy looking matter that would deter anyone from going into it who expected to be cleansed on coming out.

The first operation in the way of carrying out the contemplated improvements in this pond, was, therefore, to remove the natural dam and clear away this deposit. It was thought at first that this, with the removal of some of the loose and projecting rock, would constitute nearly all the labor required, but on draining out the water and exposing the rock, previously covered by water, the effects experienced in the Cave became apparent, and the rocks began to crumble, and the quicksands to ooze out from many apertures not visible before, and at last an immense mass of rock cracked and separated from the projecting bank and threatened destruction to the whole work.

Of course this loose and partially detached rock could not be left in this position; even if it never fell it would have the effect of deterring any bather from entering the waters, and the work of removing it was at once commenced; and to provide against similar mishaps, it was decided to remove all loose rock and build a substantial wall of masonry round the Basin as in the Cave.

The Basin was then enlarged to about three times its original capacity, and the floor levelled off, and the whole deepened to about an average depth of five feet from the top of the walls. A masonry dam was built with waste pipe and valves complete for regulating the depth of water, and a comfortable swim can now be taken without



danger from any source. This is a favorite resort for bathers, and it is pronounced as near perfection as it is possible to make it, notwithstanding the predictions of some critics during its construction that it would prove a failure.

It may readily be conceived that the cost attending these improvements must necessarily far exceed the anticipated estimates, but any candid mind must admit that full value for the outlay has been realized, and nothing short of a complete and substantial execution of these works could be justified. It was late in the autumn when these works were finished and the season for the rush of visitors to the Park nearly over, so that another season will be necessary to test to the full the great popularity of these bathing resorts.

Rustic buildings have been erected in the Swiss style, of the timber of the mountains, on good stone foundations. The buildings consist of waiting rooms and dressing rooms for ladies and for gentlemen in each building. A separate building in the same style situated between the two bath houses is occupied by the caretaker and his wife whose time has to be devoted to attendance on bathers and visitors. The bath houses are heated in winter by stoves, and every available means is taken to add to the comfort of the bathers.

Much disappointment had been expressed by visitors to the Park at sundry times that communication with Devil's Lake had not been provided to enable tourists, artists and sportsmen to extend their field of observation beyond the mere vicinity of the springs. The complaint was that a single day was sufficient to see all immediately surrounding the baths, while means of access to the sporting field and the principal beauties of the Park were not available. This desire it was resolved to gratify, and with your instructions the work of opening the communication was commenced in September last, and a good ordinary road for vehicles was completed by the end of October, including two substantial bridges over the Cascade River and Devil's Creek.

This road is located over a most beautiful tract of country, and cannot fail to afford pleasure and interest to even those who have no other objects than a ride or drive through a country presenting objects for admiration on all sides; but to the artist and sportsman additional attractions are in store, and it can easily be anticipated that the coming season will see hundreds of visitors making their way up the charming Cascade valley and beyond that to the further end of the beautiful lake to which this road now affords easy access.

The completion of this road so as to render the drive more still enjoyable should be undertaken as early as possible during the coming season.

A scheme will be laid before you as soon as the necessary surveys can be made for laying out a range of villa lots at the terminus of this road at the foot of the lake.

The road sweeps round the lake at a distance of about 300 feet from its sandy beach, and the space between the road and lake is admirably adapted for cottages, lodges, hotels, and sporting boxes, and a considerable revenue may be derived from the leasing of these lots.

Persons have already applied for permission to place steam yachts on this lake, and if this is carried out satisfactorily the visitor to the park this coming summer will no longer have grounds for complaining of the limited area to which he is necessarily confined.

This road to the Devil's Lake was chopped and close cut, grubbed and graded sufficiently to enable carriages to pass over without inconvenience, and including the construction of two substantial bridges was all completed within seven weeks with about ten men, the expenses being kept down to the lowest possible amount available for the purpose.

During the summer and autumn of 1886 several sites were applied for and two bath houses erected at the Hot Spring, one by Dr. Brett and the other by Whitman McNulty. To supply these houses with water from the Spring the necessary piping and water chamber had to be provided. This was done by opening an excavation in the rock immediately above the natural outlet of the water. At this point

a break down of the rock had occurred exposing the water to the cooling effects of the atmosphere, and allowing the escape of the natural gases. It was therefore considered necessary to close this place and construct the water chamber there. The fallen rock was removed and the cavity cleared out for a space of about 15 feet square. The source of the spring was thus exposed and the water chamber built over it of substantial masonry, with the valve chamber adjoining, from which the supply and waste water pipes were extended out.

This main supply pipe was carried along the face of the mountain at a moderate grade above the bath houses, and the branch pipes supplying these houses were attached to the main pipe at points opposite each building.

This simple and efficient mode of supplying the hot water to the bath houses was supposed to be sufficient for some time to come, but during the past summer applications were made by persons having hotels on the lower levels near the river to have the hot sulphur water conveyed down to their buildings.

The whole fall from the Hot Spring to the site of these buildings being over 600 feet, it was not thought advisable to bring the water down direct from the source, as the pressure being about 250 pounds to the square inch was more than ordinary pipe and plumbing would stand, and consequently it was found necessary to break the fall at some intermediate point and supply the lower levels of the Park from this lower point. For this purpose an iron tank was constructed at about half way down from the Hot Spring, and the supply to the lower hotels taken from it. The tank was completed this winter, the pipes laid, and everything necessary provided for the supply of the Canadian Pacific Hotel and Sanitarium when required.

During the summer of 1886 many fires occurred within the Park, which, but for the exertions of the men on the works might have resulted disastrously to the Park. It seemed impossible to trace those fires to their causes in many cases, and constant watch had to be kept for their first indications.

Much time and labor was lost in battling with the flames, and all the men on the works had frequently to be called off and occupied day and night in their endeavors to subdue the fires. The terrible disaster to the Park an extensive fire might produce is so apparent that great vigilance was exercised in detecting the first appearance of a fire, and afterwards in subduing it, and the large quantities of dead and fallen timber covering the ground in many places made the dangers much more imminent, and also the task of subduing them much more difficult. Besides these dangers to the Park many expensive buildings were now being erected, all more or less at the mercy of the flames if they were not kept under control. The magnificent Canadian Pacific Hotel would be in great danger from a high wind from the west, owing to the quantity of dead timber on that side, and nothing could save the building if the fire from that direction took place under such circumstances. For these important reasons it was judged of the greatest importance that as much of this inflammable matter as possible should be removed as soon as possible. Much of this clearing up and removal of dead timber was done during the summer months, and on into the winter, and as a result no fire of any consequence has occurred since last May, and the labor saved, over the previous year, has more than compensated for the cost of the clearing. Besides this a large quantity of firewood has resulted from the clearing up, which, when sold, will reduce the cost of clearing. Over one hundred acres of land has been chopped and cleared this past summer, with results of the greatest importance to the appearance and safety of the Park.

Soon after the passing of the Act of Parliament last session establishing the Park and regulating its government, the leasing of lots on the town site was proceeded with. Many persons had already taken lots and built places of business and dwellings. All of these with the exception of one or two, and many others who had not before taken lots, agreed at once to accept a lease under the favorable terms on which you had placed the lots in the market. Already 180 lots have been leased and the first year's rent paid, amounting to \$1,298, and many more lots would have been leased had the question of the final location of the railway station been decided.

Up to the spring of 1886 no permanent residents were found within the Park

with the exception of the section men at Banff station, on the railway, and the claimant of the discovery of the cave who occupied a rude shanty in its vicinity. A few migrating invalids resided temporarily in tents round the Hot Springs. Our town site and indeed the whole Park was a wilderness throughout, but the summer of 1886 brought life and activity which has continued to increase rapidly to the present time.

Extensive marshes extend along the upper stretches of the Bow River producing an abundance of good marsh hay. The cutting and saving of this hay crop was let by contract and sold at cost price, plus \$1 as a royalty; the revenue to the Government from this source will amount to about \$300 when all is collected.

A much larger quantity of hay would have been secured but for the unusually high water in the river and the length of time it remained on the marshes.

Next season a better system will be submitted to you for approval, but the best means of disposing of the hay question can be attained only by experience, and it is hoped that in due time that will be attained. The great object in the meantime is to guard against monopoly and speculation, and the prevention of the inhabitants of the Park suffering from a want of a cheap supply of the abundant hay crop which nature has provided for them.

It is very essential that the topographical survey of the Park should be completed as soon as possible in order that the plan may be perfected. The most important and tedious part of the survey has already been done, and that remaining can be carried on without the same degree of minuteness required in the work of the past.

The survey should be extended on eastward from the foot of Devil's Lake, the correct traverse of which should be made, and the work continued out through the "gap" to the eastern limits of the Park.

The work should also be carried up the Bow Valley, the Spray and Cascade Valleys, and in each case to the bounds of the Park. This survey should consist of a correct traverse of each of the rivers, and such observations throughout the several valleys as are necessary to afford a general knowledge of the topography, and need not extend further up the mountain sides than is easily accessible.

The survey should also embrace the ascertaining the heights and location of the several prominent mountain peaks.

It is necessary that the several avenues leading along the eastern slope of Sulphur Mountain should be located and laid down on the plan as soon as possible to enable persons to select lots for hotels, bath houses, dwellings, &c. This part of the Park is thickly wooded, and consequently it requires a certain amount of clearing done to enable persons to judge of the site they may require. If, therefore, the avenues were chopped out of the proper width and the lots posted, it would allow of their being laid down correctly on the plan, and the work of grading the roads could follow in the future as circumstances would require. In the more open parts of the Park this mode of operating will not be necessary, as the proper location of the roads can be more easily seen from the first, and the choice of lots made at once.

The wild rice sent up from Ontario by your directions was sown in the Vermillion Lakes, and also on the borders of the Devil's Lake, for the benefit of wild fowl frequenting these waters, and it is hoped in time by these means and proper protection to cultivate and encourage the game more effectually. And in connection with this matter it is of great importance that if possible the Indians should be excluded from the Park. Their destruction of the game and depredations among the ornamental trees make their too frequent visits to the Park a matter of great concern.

At the present time (twenty months after the work of the improvements were commenced) the Park contains about 650 permanent inhabitants, 350 of whom are on the town site and in the vicinity of the Springs, and a few at the station, who will move to the town site as soon as the position of the station is settled. The places of business are as follows:—

- 2 hotels on town site.
  - 1 do (sanitarium), south of the river.
  - 3 do and bath houses combined, at Hot Spring.
  - 2 saloons and boarding houses.
  - 9 stores.
  - 2 drug stores.
  - 1 post office on town site.
  - 1 do at station.
  - 2 blacksmith shops.
  - 1 day school, 25 pupils.
  - 2 churches, Roman Catholic and Methodist.
  - 2 congregations, Episcopal and Presbyterian, weekly services.
- The village of Anthracite contains 300 inhabitants.  
The floating population may be estimated from the following:—

ARRIVALS at the Sanitarium from 1st January, 1887, to 1st January, 1888.

Month.	Canada.	United States.	England.	Other Countries.	Total.
January .....	65	8	11	3	87
February .....	28	6	5	1	40
March .....	68	10	9	7	94
April .....	124	17	18	7	166
May .....	141	22	19	5	187
June .....	167	26	29	5	227
July .....	186	32	40	8	266
August .....	312	37	38	10	397
September .....	166	18	38	16	238
October .....	181	14	21	6	222
November .....	98	5	14	2	119
December .....	53	2	7	1	63
Totals .....	1,579	197	249	71	2,096

N.B.—The above statement does not include what we term "extra guests," that is, guests who take say one or two meals and do not appear on register.

(Signed) H. JENNINGS, Clerk.

There is no means of estimating the number of persons arriving at the six or seven other hotels, or those who occupied special cars at the station, or again those who lived in tents for the short time of their visit, but a low estimate of the total number of visitors for the past year would be 3,000 persons.

The heavy and expensive works of the Park are now about completed, such as the Bow and Spray bridges, the water works and the cave and basin improvements, and it may be expected that the expenditure in the future, principally on roads, will be the more fully appreciated as it will afford the visitors more extensive scope for their observations and facilities for taking in the Park.

I have the honor to be, Sir,

Your obedient servant,

GEO. A. STEWART,

Superintendent.

ROCKY MOUNTAINS PARK, 1st February, 1888.

## ROADS.

Work done to 30th April, 1887.

Quantities.	Locality.	Nature of Work.
648 rods.....	Banff Avenue.....	Chopping, grubbing and grading.
873 do .....	Hot Spring Avenue.....	do do
315 do .....	Cave do .....	do do
315 do .....	River do .....	do do
242½ do .....	Glen do .....	do do
242½ do .....	C. P. R. Hotel do .....	do do
97 do .....	Middle Spring do .....	do do
139 do .....	Lynx Street .....	do do
2,872 rods, or 8·98 miles.		
242 rods.....	Upper Cave Road .....	Close cut and cleared
109 do .....	Buffalo Street.....	do do
151 do .....	Wolf do .....	do do
121 do .....	Cariboo do .....	do do
85 do .....	Bear do .....	do do
85 do .....	Beaver do .....	do do
85 do .....	Muskrat do .....	do do
182 do .....	Creek do .....	do do
273 do .....	Bow Avenue .....	do do
1,333 rods, or 4·17 miles.		

## NEW ROADS OPENED, NOT COMPLETED.

Work done from 1st May to 31st December, 1887.

Quantities.	Locality.	Nature of Work.
112 rods .....	Buffalo Street.....	Chopping, clearing and close cutting.
163 do .....	Spruce Avenue .....	do do do
1,250 do .....	Devil's Lake Road .....	do do and grading.
1,525 rods, or 4·76 miles.		

## LAND CLEARED.

From 1st May to 31st December, 1887.

Acres.	Name.	Locality.
5 .....	Vanwart .....	Hot Spring.
17·89 .....	Lukin .....	Glen and Cave Avenues.
17·22 .....	Disbrowe .....	Spruce and Glen Avenues.
8 .....	W. McCardill .....	Cave.
2 .....	Moir .....	Basin.
20 .....	Men on pay-roll.....	West of C. P. R. Hotel.
80·11 acres, exclusive of new roads.		

In addition to this 20 acres have been cleared on Banff Avenue for the firewood it produced, principally fallen timber.

## ROADS.

Work done, 1st May to 1st November, 1887.

Quantities.	Locality.	Nature of Work.
960 rods .....	Mountain Avenue.....	Ditching and draining.
345 do .....	Cave do .....	do do
620 do .....	Banff do .....	do do
1,925 rods, or 6 miles.		
610 rods .....	Mountain Avenue.....	Turnpiking and forming
308 do .....	Cave do .....	do do
310 do .....	Banff do .....	do do
1,228 rods, or 3·84 miles.		
420 rods .....	Mountain Avenue.....	Gravelling.
152 do .....	Cave do .....	do
310 do .....	Banff do .....	do
882 rods, or 2·75 miles.		

## RECAPITULATION.

6 miles .....	Ditching and draining.
3·84 do .....	Turnpiking and forming.
2·75 do .....	Gravelling.
12·59 do .....	Total.