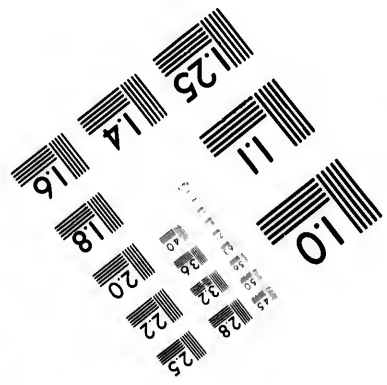
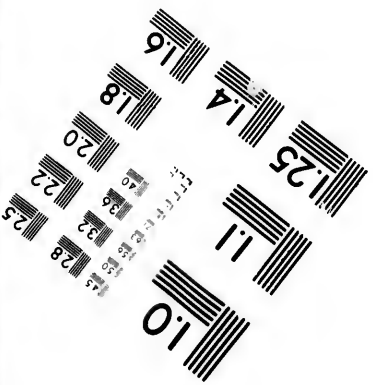
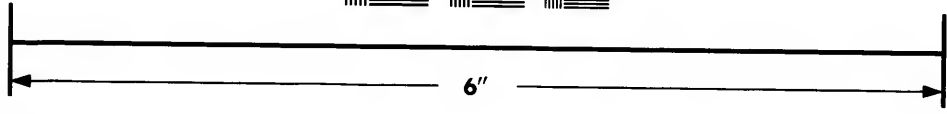
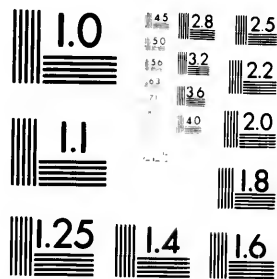


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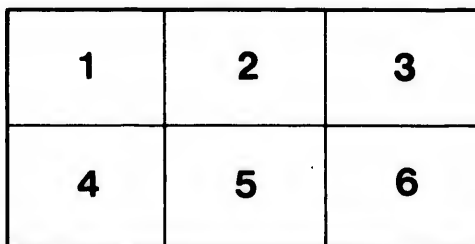
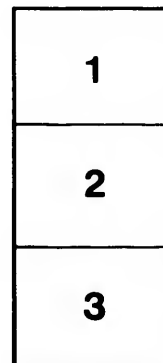
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Mount Pleasant

Page 12





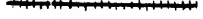

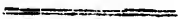

L. F. Frissell, portions of this account may reveal
pleasant memories.

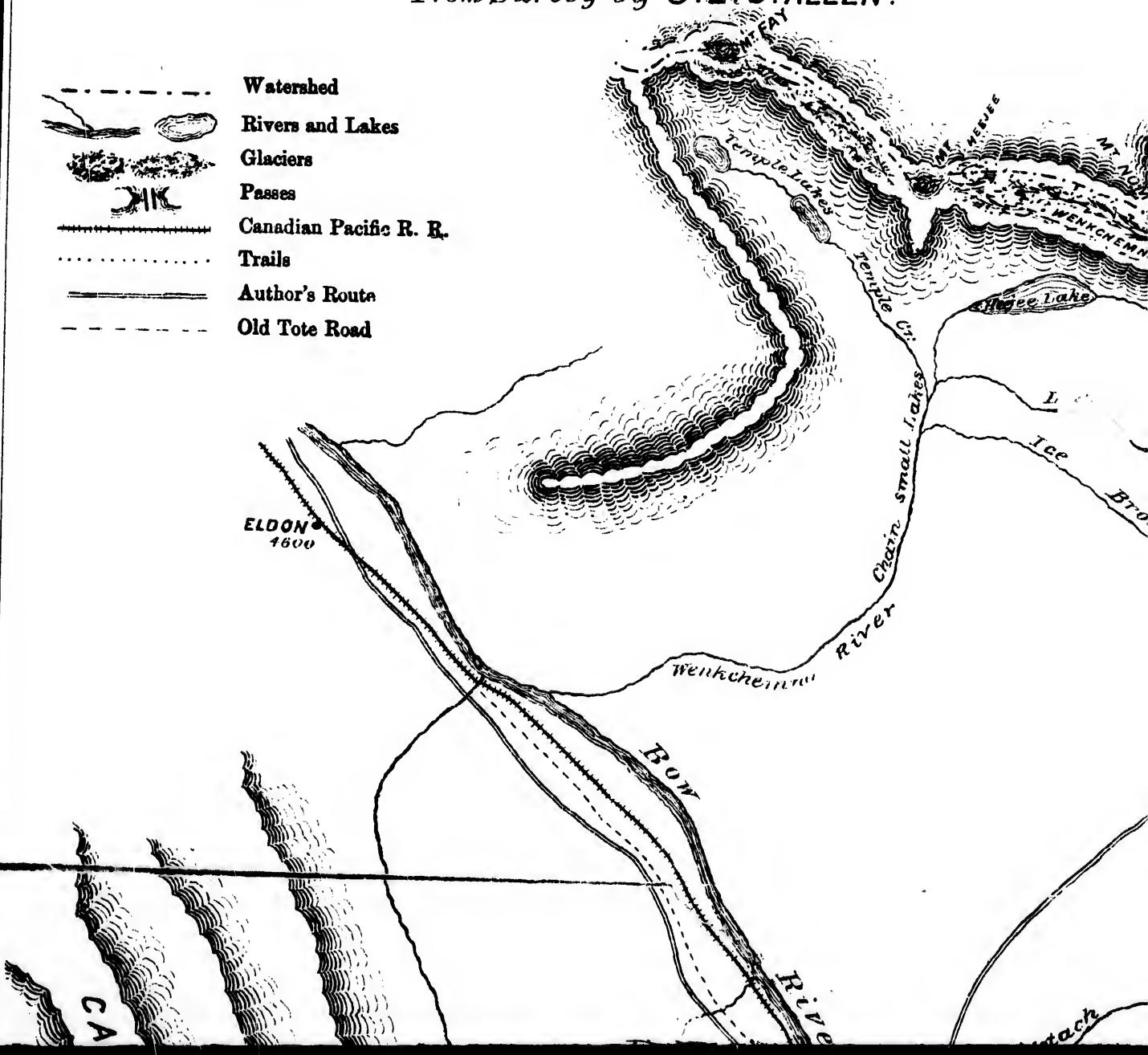
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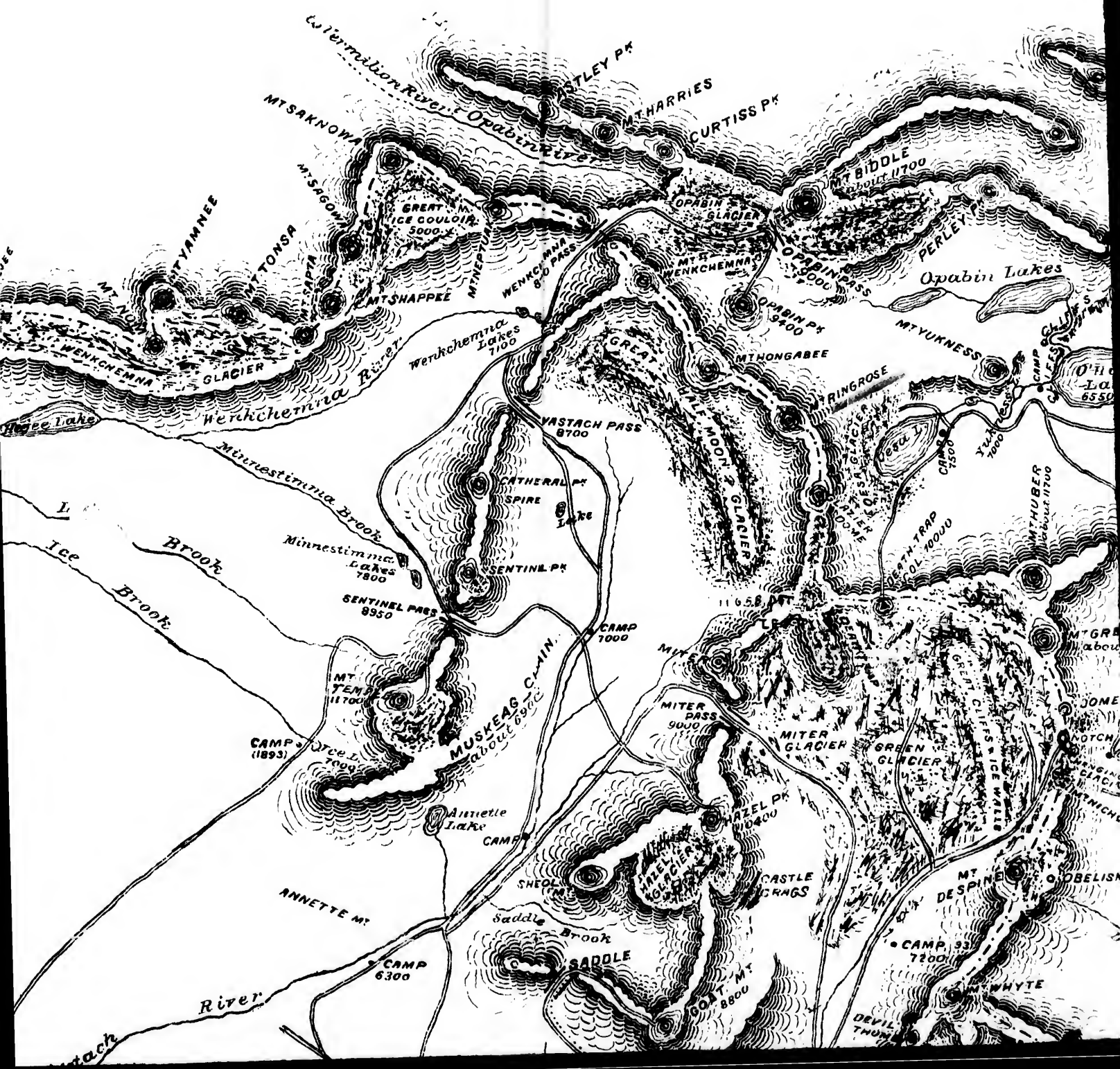
116° W. LONG.

MAP OF
 A PORTION OF THE
WATERSHED
 OF
Rocky Mountains

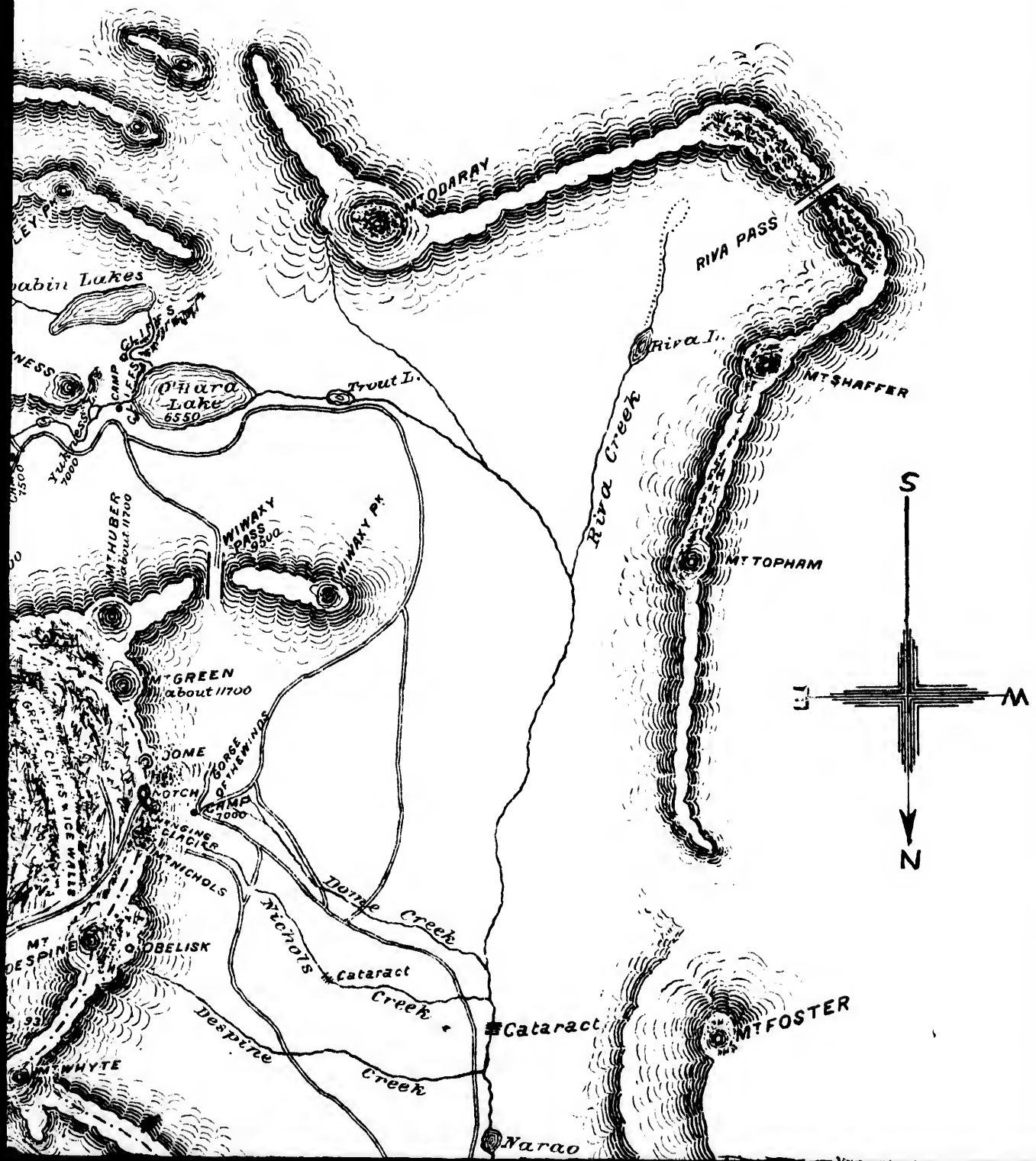
From Survey by S. E. S. ALLEN.

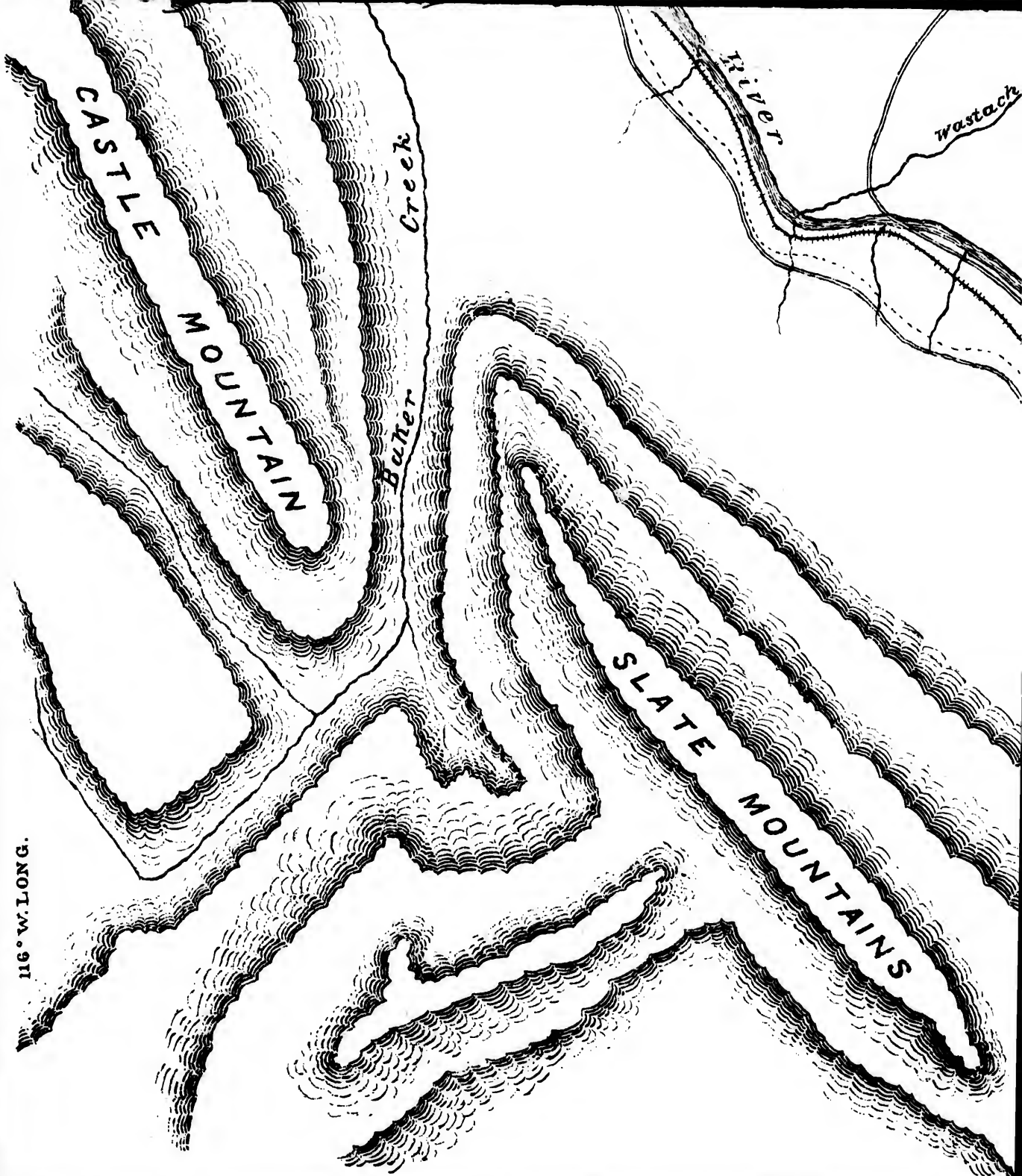
-  Watershed
-  Rivers and Lakes
-  Glaciers
-  Passes
-  Canadian Pacific R. R.
-  Trails
-  Author's Route
-  Old Tote Road





SCALE: 1 Statute Mile 1 Inch.





116° W. LONG.

CASTLE
MOUNTAIN

Baker
Creek

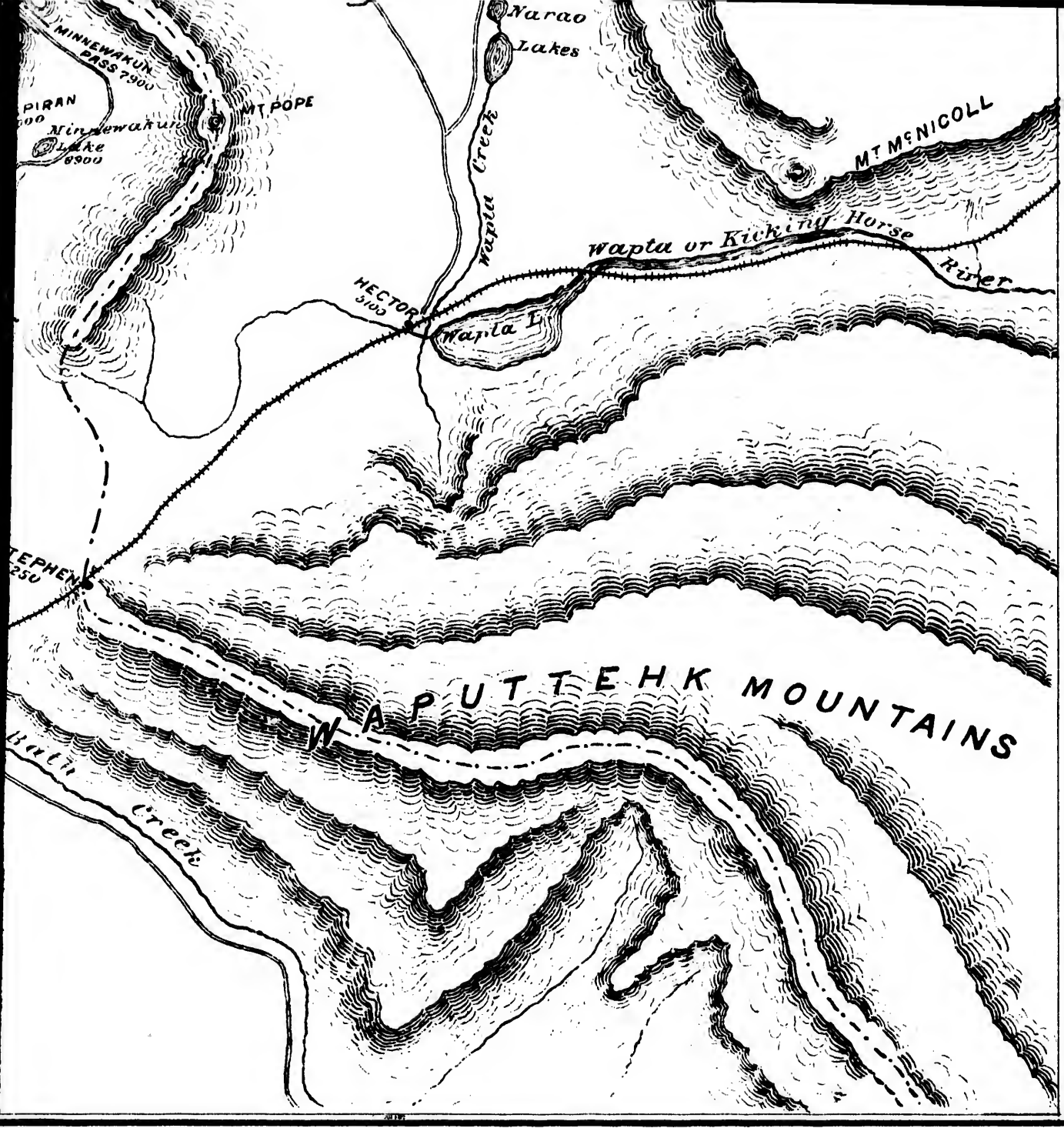
SLATE
MOUNTAINS

Washach
River

Washach



J. L. Smith. Map No. 215. 6th Str. Philada.



MINNEWAKUN
PASS 7900

PIRAN
500
Nirawakun
Lake
8900

MT POPE

Narao
Lakes

Waputa
Creek

MT McNICOLL

Waputa or Kicking Horse
River

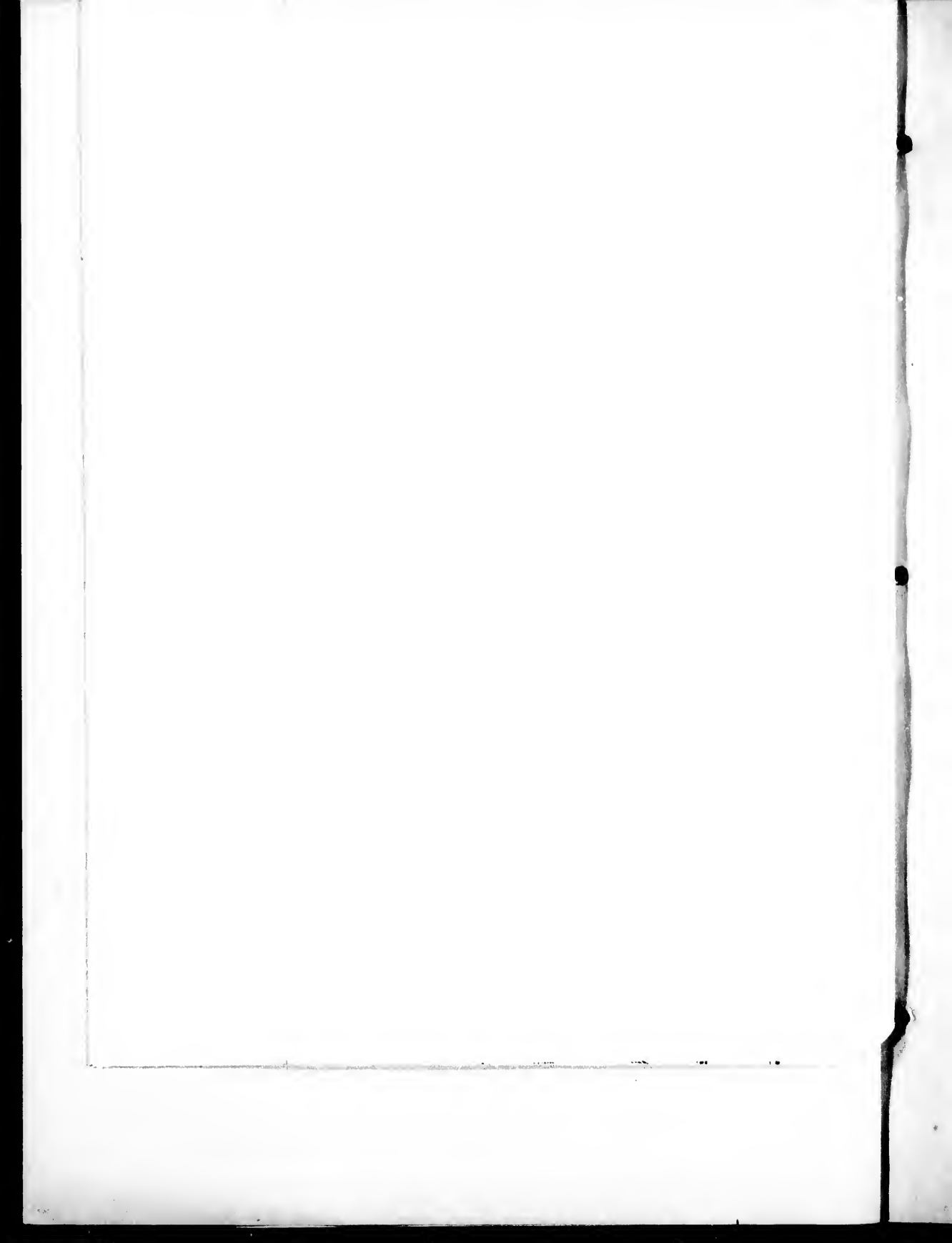
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WAPUTTEK MOUNTAINS

Waputa
Creek



EXPLORATIONS AMONG THE WATERSHED ROCKIES

OF CANADA.

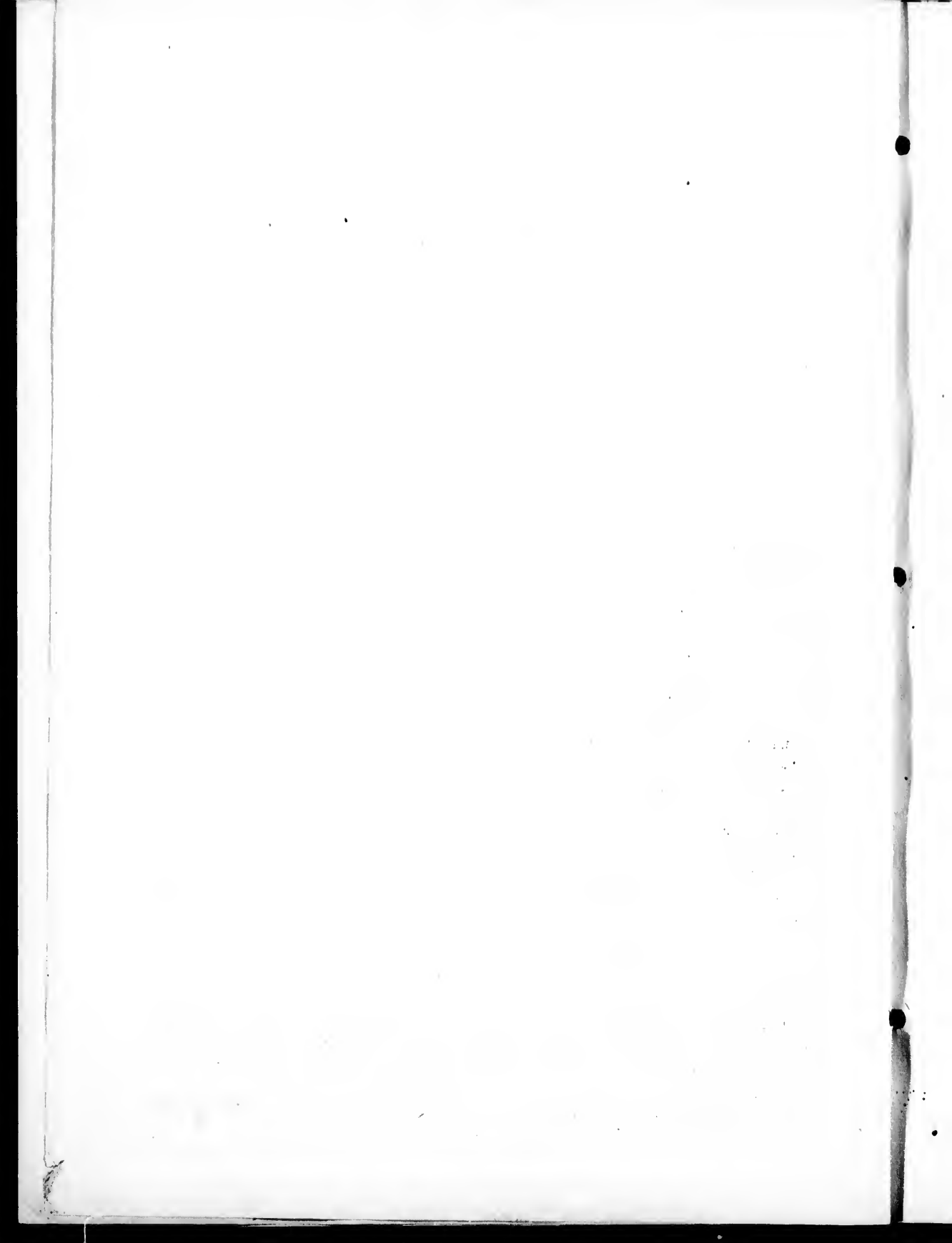
By
S. S. Allen.

PREFACE.

This account is intended as a brief summary of three summers among the Rockies, and aims to show to those interested in mountain climbing the almost inexhaustible material which these mountains afford. The accompanying map, made from a survey by the author, with prismatic compass and aneroid barometer in a hitherto unmapped region of the watershed south of the Bow River, is intended to serve as preparatory to other more accurate ones in the future. That many errors will be found to exist the author sees no reason to doubt. They will probably be found greatest upon the outlying parts of the map. If it shall prove of any assistance to climbers and travellers in this delightful region, or serve to show some opportunities for future investigation, it will have served the purpose of its composition.

The author wishes to acknowledge the valuable assistance, in his expeditions of '94, rendered by W. J. Astley, proprietor of the Lake House Chalef, and by Mr. Perley, proprietor of the Glacier House, in his expeditions of former years in the Selkirks; also to John Carryer of Field, his assistant upon his Hector and Assiniboine expeditions in 1894.

Finally, he hopes that for his friends and fellow travellers, W. D. Wilcox, George Warrington, Yandel Henderson and L. F. Frissell, portions of this account may recall some pleasant memories.



My introduction to the Canadian Rockies was in July of 1891. Journeying eastward by the Canadian Pacific Railway from a month of climbing in the Sierras of California, though unequipped for the more dangerous work of the Rockies, I was still able to make a number of interesting climbs among the Selkirks at Glacier, and afterwards in the main chain of the Rocky Mountains at Field and Loggan. At Glacier, I ascended to the upper neve of the great glacier by its rocks and easy snow slopes on the eastern side. Field was in those days a busy rendezvous for prospectors, one of whom accompanied me in a trip to Emerald Lake, at that time unknown to the majority of travellers. I was also enabled to ascend to the fossil bed upon Mount Stephen, penetrating to the fine amphitheater behind it, from whose snow fields flows the stream that joins the Wapta river at Field. Finally, at Loggan I obtained my first view of that superb glacier-capped peak to the southeast, towering nearly seven thousand feet above the valley. In a short visit to the beautiful Lake Louise, south of Loggan, I was also much impressed by the majestic peak reflected in its clear surface, whose avalanches were continually seen and heard as they plunged with the roar of thunder down the enormous cliffs from overhanging ice walls. With the ascent of a pinnacle, which I named the Devil's Thumb,* 9000 feet above the sea, rising from Lake Agnes above Lake Louise, and well seen from the chalet, I ended my climbing for the summer.

It was not until the summer of 1893 that I again had the pleasure of finding myself at Banff, on the edge of the Rockies. While awaiting an acquaintance, I ascended Twin's Peak, 9600 feet above the sea, and obtained my first view of a gigantic peak to the southeast, which I learned was Mount Assiniboine, and with which I was destined to have a better acquaintance.

Two attempts to ascend the peak at the head of Lake Louise proved unsuccessful. In each case the objective point was the notch or depression at the western end of the great ridge. The first attempt was stopped by a maze of crevasses in the great plateau below the notch, and in the second attempt a point was gained immediately below the notch, to which it was found impossible to ascend. I have since given up all hope of ascending the mountain from the north, swept as it is by continual avalanches or thoroughly guarded by the great walls.

* By ascending the Beehive from Lake Agnes and making the Thumb from the south side.

My climbing in the vicinity of the watershed closed for the summer with an ascent of Goat Mountain, a grand scenic point, and an unsuccessful attempt upon Mount Temple. With Indian and pony, we penetrated the thick forests south of the Bow river for fifteen miles, camping by a little lake at an altitude of 7000 feet, on the eastern side of Mount Temple, whose walls rose over four thousand feet above. Encircling the base of these cliffs an ascent was made from the southwest by a long arete to a height of 10,000 feet, where icy rocks barred further advance. The mountains to the south, wonderfully sharp and of great height and quite unlocated upon the railroad map or upon Dr. Dawson's "Geological Map of a Portion of the Rocky Mountains," I determined to explore at a future time.

An ascent of Eagle Peak^x at Glacier, ⁱⁿ the Selkirks, where our cairn was distinctly seen from the station, and of Mount Cheops,† was followed by a three days' expedition over the Asuekan Pass, with Rev. Dr. Nichols, during which we reached the top of Mount Fox, as described by him in a delightful article in a book number of Appalachia. With these few introductory remarks I turn to the summer of 1894.

Upon arriving at Laggan, Thursday, July 26th, I was met with the account of what might have been a fatal accident to one of my friends who had preceded me. A party of three had made an attempt to ascend Mount Lefroy by the couloir upon its N. W. buttress. For two of them it was a first experience in snow work, while the third had received his introduction from me the previous year. As I understand it, they had exchanged the couloir, which was growing uncomfortably steep, for the adjacent ledges. Here the centre man had in some way dislodged a large boulder, which bowled over the end man to a ledge some feet below, injuring a hip muscle and rendering him quite helpless. He was with difficulty lowered from ledge to ledge and finally down the couloir to the glacier, whence at a later hour he was removed to the chalet and was still upon crutches when I arrived.

^x By the avalanche track, south of E-W arete, on south side of stream, to plateau above, thence by snow slopes to left above, striking E-W arete about 400 feet below summit. Total time out from Glacier House 12 hours.

[†] From the first snow shed below Loop, ascending diagonally to the N. W. and taking peak in rear, from W. a water bottle necessary. Time, ascent from Glacier House, 5 1/2 hours; descent, 3 hours.

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My first ascent was a small peak west of Lake Louise, a useful surveying point, which we named Mount Piran. For my base line I used a distance of one mile along the railway east of Loggan, as measured by the mile posts, my plan being to survey with prismatic compass and aneroid barometer that portion of the watershed and adjacent valleys lying south east and southwest of Lake Louise, pushing my survey as far as time and opportunity would allow.

The day following, Saturday, the valley to the west was explored, whose stream had been observed to flow from a little lake at the western foot of Mount Piran. We skirted the north base of the "Little Beehive" where the forest struggles for supremacy with quartzite cliffs and ledges, clothed with moss and stunted pine. After two hours of slow progress, during which we were continually forced to descend, we emerged about noon upon a sloping meadow, fringed with painters' brush. A snow bank above furnished us with a drink and hurrying on through thick forest we at length came upon our desired stream in a little hollow hung with moss and ferns, with two graceful waterfalls behind. We followed its eastern bank, clinging to roots and boughs and moss, for the stream was a succession of waterfalls, and we gave it the Indian name of Minewakun, or cascade.

In about an hour we stood upon the bank of Lake Minewakun, about the size of Lake Agnes, and lying between Mount Piran and Pope's Peak, whose great columnar summit two thousand feet above was reflected in its surface of transparent green. It was just at timber line, 7000 feet above the sea. Behind us lay the broad Bow Valley, with its winding river.

After a halt for bearings and photographs, we followed the soft wet meadow to the base of the snow slopes leading up to the pass, to the east, at right angles to the valley. This gave us no difficulty, though just below the summit of the col a little step cutting was helpful in the frozen crust. The height of the Minewakun Pass was 7900 feet.

It was blowing quite a gale on the summit so we were glad to hurry down the easy slopes of rock and scree to the valley of Lake Agnes and thence by the trail to Lake Louise.

Spending Sunday as a day of rest, four of us started on Monday to explore the eastern tributary of the great glacier south of Lake Louise. This latter glacier I have called upon my map by the name of the great peak from whose base it flows, and the naming of which I shall discuss at some length in another place. (See page 14.)

The eastern tributary glacier which we planned to explore, occupies a narrow valley between the enormous wall of Mount Lefroy on the south, from whose hanging glacier three thousand feet above drop frequent avalanches, and the steep

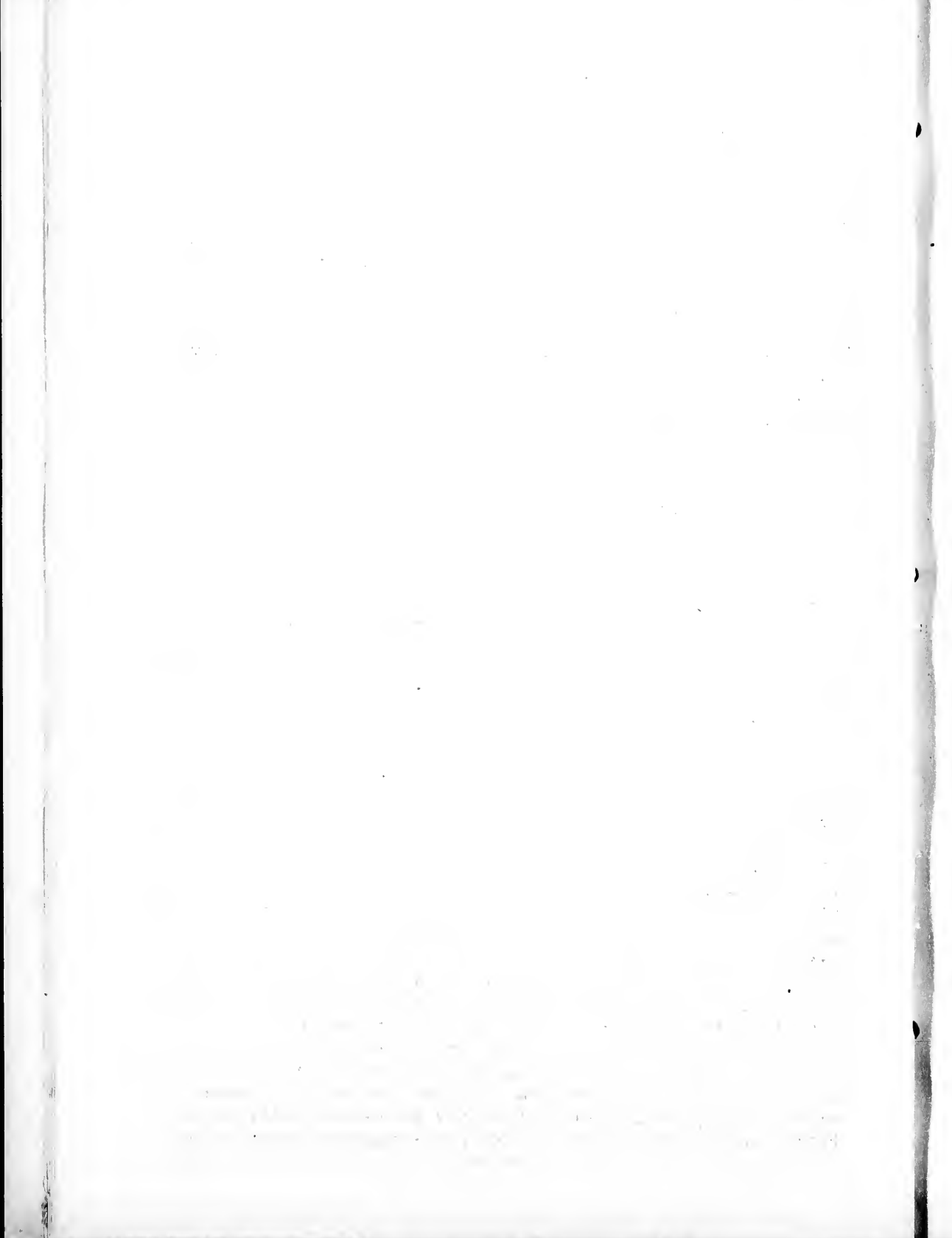
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cliffs of Hazel Peak on the north. From the ridge at the head of this valley connecting these two peaks rose a sharp aiguille, which we named the Mitre. To either shoulder led steep couloirs, the southern one inaccessible, filled with ice falls and continuous schrunds, and the left or northern one broader, and forming the main neve of the Mitre glacier. It contained several long but not continuous crevasses and was less steep than the other. As it was still early in the day we determined to ascend this pass.

There was a brief delay on the lower slopes, caused by the third man breaking through the crust of a crevasse, which the soundings had failed to indicate. Proceeding upward, we crossed the first schrund, which was nicely bridged. The second necessitated a long detour, and owing to the presence of smaller intermediate crevasses, it was necessary to hug the lower lip of the schrund, whose leaning wall we could at times touch with our hands. Here, with the steep crevassed slope to the left and the gaping schrund to the right, could be felt the exhilaration that comes from genuine climbing. Judging, however, from the running comments of my friend in the rear, lately pulled from the crevasse, it was not for him unalloyed bliss.

After the bridge was crossed the slope steepened and frequent step cutting was necessary. Our progress was slow, as every step was made large to insure safety on our return. We ascended diagonally to the left toward a large rock, to obtain a much needed rest. The last hundred feet were exceedingly steep and of pure ice. While lunching upon the rock I looked upon one of the grandest avalanches I have ever seen, leaping like a roaring waterfall from the top of Mount Lefroy spreading in spray from ledge to ledge to the glacier four thousand feet below, and filling the narrow gorges with the noise of thunder.

The remainder of the ascent to the col was less steep and the snow was good. As we stepped upon the narrow ridge 9000 feet above the sea, the view beyond was indeed beautiful, which by the Indian equivalent Wastach I at once entitled it. From our feet descended a steep snow couloir, between the cliffs of Hazel Peak and the Mitre, which formed the frame for a picture of a broad valley two miles in width, colored with the varying greens of forest and meadow, drained by a sinuous river, and bounded upon the opposite side by a range of sharp dolomitic peaks, bearing snow and glacier in the depression, and a fine snow pass, beyond which other summits rose. The afternoon sun lit up the scene with brilliant light, and as we turned to survey the valley whence we had come, already dark with lengthening shadows from the gloomy



walls, its ice and rock and snow relieved by no contrast of vegetation, doubtless the aesthetic suggestions of the two prospects made us the more loath to incur the danger of a descent down the slopes of ice and neve and more willing, even at the risk of being benighted to descend into this attractive valley.

The snow in the gulley was good and we started to glissade. As two of the party were entirely unfamiliar with this method of descent, we roped; I was the last man; I had used the roped glissade with great advantage on former occasions, but a moderate and uniform rate is absolutely necessary. The pace set by our friend in the van might have answered very well for an individual, but certainly took no thought for the party as a whole, the amusing consequence being that we all exchanged the standing for the recumbent position.

Descending finally the rock ledges and slopes of scrubby spruce to the stream below, we discovered that this flowed from the west end of a magnificent semi-circular glacier, which I called the half moon glacier. It lies at the base of the bounding range at the head of the Wastach Valley, and is the product of the avalanches which sweep the steep ice couloirs, or fall from the eastern side of Mount Lefroy. Lower down the stream united with another branch flowing from the eastern horn of this glacial crescent.

We followed the stream down a great natural staircase of quartzite blocks between walls of green and beneath a dome of blue. Behind us, to the south, towered the great rock peak, which I have named Hungabee or the Chieftan; at its feet, high above the forest trees, shone the great blue glacier.

After joining the other stream, the Wastach River left its stately, almost artificial, pleasure ground, to fight its way through debris and thick forests to the Bow River. When the going became rough, G., one of my friends, began to show signs of lameness. The others failed to wait and were, accordingly, soon out of sight and hearing. They left a note attached to a stake announcing their direction, an ascent of several hundred feet through forest to skirt the cliffs of Goat Mountain. Such an ascent was for my friend impossible, and we were benighted in a wretched place upon a steep bank, strewn with fallen timber. Sleep was impossible, and a small fire only partially relieved the chill of the night wind that swept down the valley. My poor friend was soon unable to move his limbs, and I was obliged to turn him as upon a pivot, with his feet for a fulcrum, whenever he desired a change of posture. After an exhaustive review of our eventful day, and a lamentable failure to get up a philosophical discussion,

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(for my friend is above all things a philosopher) we awaited the dawn in silent misery.

Carefully extinguishing the fire at daybreak, we left the river and kept a straight line through the rough timber for six miles to Laggan. Though, as he afterwards confessed, it caused him great suffering, G. gave a superb exhibition of pluck, refusing all assistance and maintaining a steady pace. Both of us were affected with sore eyes from the sleeplessness and smoke of the fire.

Thursday and Friday were rainy, but on Saturday, August 4th, two of us left Lake Louise with camping outfit and provisions to establish a camp in Wastach Valley as near as possible to the foot of Mount Temple, which forms the northern extremity of the range upon the eastern side of this valley. This peak, upon which I had been unsuccessful the preceding summer in an attempt upon its eastern face, was evidently impassible from the north and west, and the only hope was from the southeast or southwest, which I planned to reconnoitre. Leaving one Indian and pony to bring some provisions then being prepared, H. and I started eastward through the forest from the Louise stream.

Keeping as nearly as possible the elevation of 6500 feet, we followed a line of muskeags or peat swamps which lay at this level and afforded much better going than the dense forest. We ate our lunch upon reaching the Wastach River, not far from the scene of my unpleasant benightment. From this point the view up the valley was superb yet gloomy. Ahead, to the south, stood the hazy, sharp peak, guarding the entrance, which we named Mount Sheol, with Hazel Peak and Goat Mountain to the right. To the east, Mount Temple shut in the valley, with its fearful cliffs and shining cap of ice. The pony grazing contentedly in the long grass, the river gliding quietly between low banks, as if resting from its recent conflict in the defile between Mounts Temple and Sheol, before it should take its final plunge to the Bow Valley, and the Indian in his picturesque garb of skins, together with suitable additions of forest, cloud and sky, completed this characteristic scene.

Where the stream was crowded between Mounts Temple and Sheol, the west bank became almost impassible from fallen timber and dense underbrush. The logs were piled high above our heads in many places, and long detours were necessary. In a later trip we discovered the eastern bank to be much better.

Just below the junction of the streams we forded the river and camped in a heather meadow. The other Indian joined



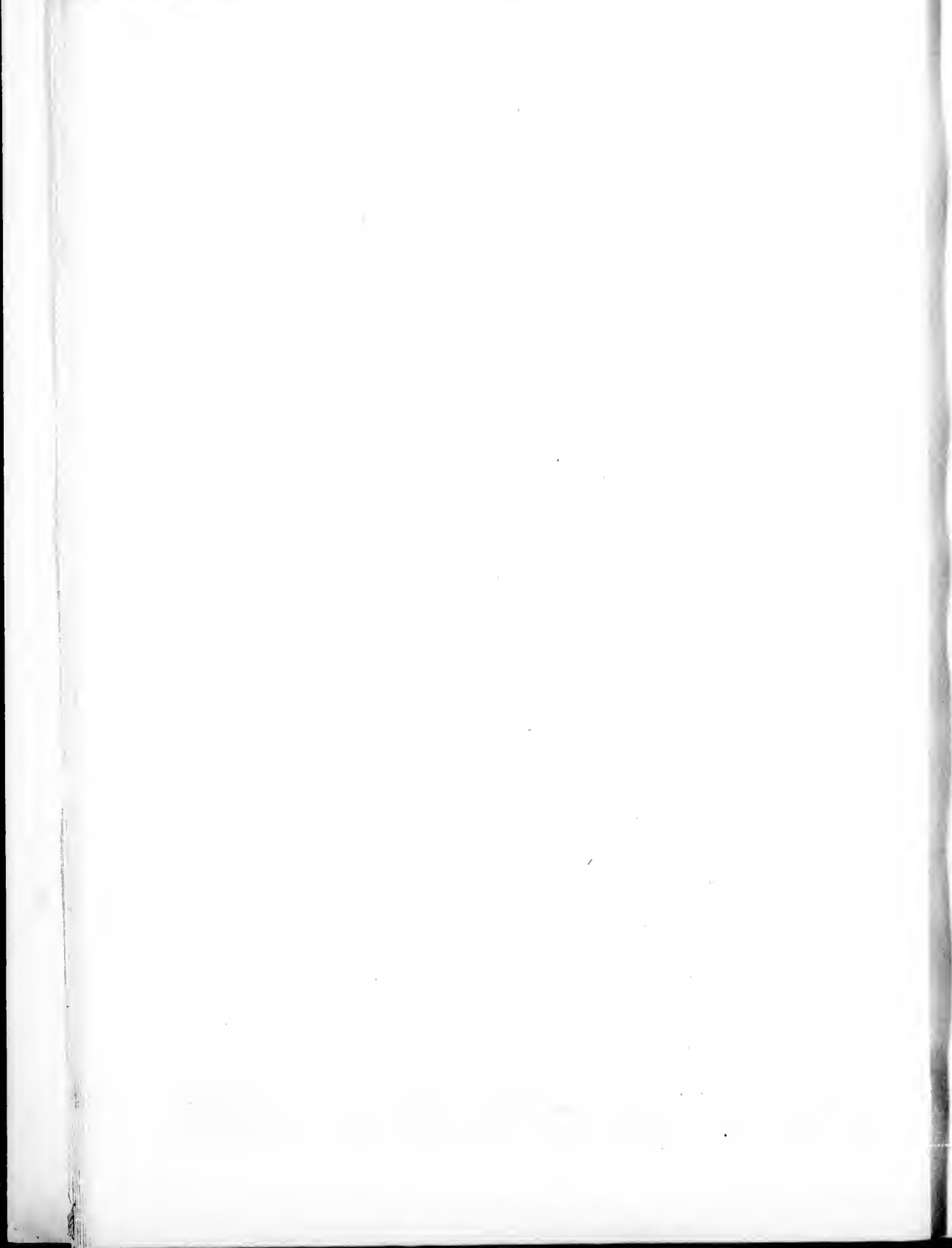
us soon and we set up the tent upon the ice axes, with the roof low for additional warmth. We were quite close to the western wall of Mount Temple and could watch the fading colors pass over its glistening cap till night called us to rest and sleep.

Deserted next morning by the fickle Indians, we proceeded up the left or eastern branch of the Wastach River, each leading a horse. The packs gave us great trouble, and on one occasion a horse rolled about feet down a bank and narrowly escaped a plunge into the torrent.

In about two hours we established our permanent camp on the edge of a swampy meadow, just below the pass connecting Mount Temple with the next peak to the south, which we called the Sentinel, and the pass, Sentinel Pass. Thus we had a full view of the whole southwest side of Mount Temple, and it was far from attractive. Slopes of broken rock led up to the base of gigantic cliffs, scarred with numerous unattractive gullies. To the north of Sentinel Pass rose a perpendicular cliff or "step", and above this another, and could but the top of this second step by our means be reached, an easy slope of rock led to the summit.

South of the Sentinel was a sharp peak, which we called the Cathedral, and then came the broad snow pass we had seen from Mitre Col. This pass, which we crossed on the following day, we named for the valley, Wastach, since it was the main entrance to the next valley to the east. Then came the Mungabee circular range, bounding the valley to the south, with the half moon glacier at its feet; then to the southwest the walls of Mount Lefroy capped with ice, and the cliffs of the Mitre and Hazel Peak shutting in the valley on the west. The Mitre Pass was only partially visible. Such was the panorama as seen from the river bank, a hundred yards from our tent; the altitude was 6900 feet above the sea.

Ascending the Sentinel Pass next morning, we were struck with the grand appearance of the Sentinel. A vast dome of rock, it bears upon its lower slopes great ice fields, whence rise in solitary grandeur slender columns or pinnacles several hundred feet in height. We traversed the lower snow slopes of the Sentinel Pass, which were succeeded by a short ice slope, and this in turn by a most dangerous slope of unstable rock, every step upon which caused a prodigious slipping all around us, and threatened to dislodge great boulders above. There was no secure handhold and the weight had to be carefully distributed upon all four members. From the top, which we finally reached, 8950 feet above the sea, two small green lakes were visible just beneath us, fed by the snow-



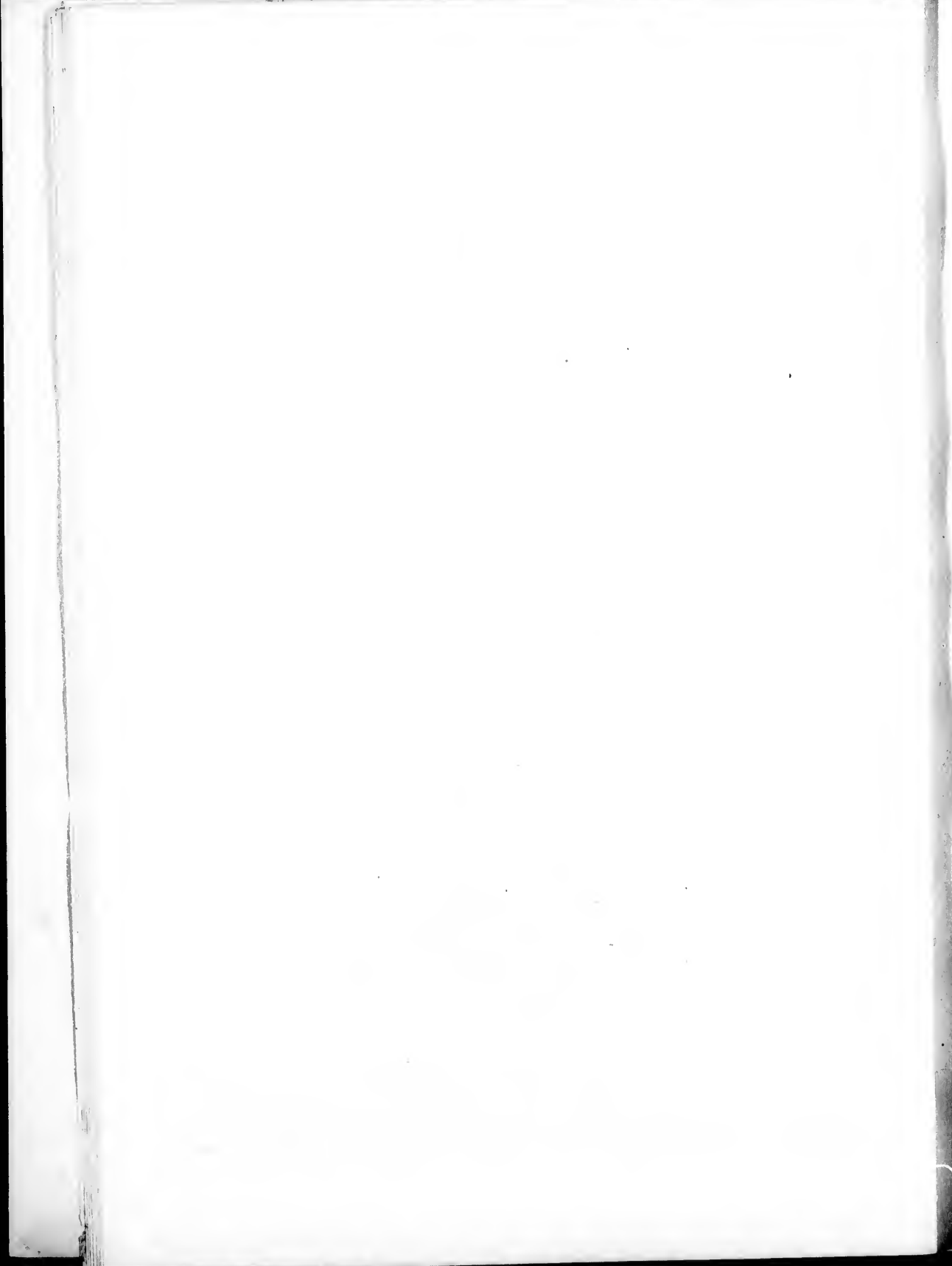
fields on this side of the Pass. These I named Minnestimma, or sleeping water. The valley beyond was the one into which I had looked from Mount Temple in the summer of '93. I afterwards saw that it was bounded on the east by a superb range of ten sharp peaks, to which I applied the Indian numerals from one to ten. Upon descending the pass I saw at the base of No. 1, Mount Hejee, a grand and gloomy lake, reflecting in its dark surface the walls and hanging glaciers of Mount Hejee. This lake, which I named Hejee, I had photographed the previous summer from near our camp at the base of Mount Temple. It is about three-quarters of a mile in length, and like the other peaks and lakes of this region, hitherto unmapped.

The summit glaciers of Mount Hejee are the most extensive of the kind I have seen in this region. The summit of the mountain consists of a long ridge rising from a great plateau of glacier and neve. This ridge runs about north and south, and its appearance from the west is not unlike that of the northern face of Mount Dawson in the Selkirks. Mount Hejee should be one of the chief attractions to future climbers on the watershed. Its height is about the same as Mount Temple, perhaps slightly less, though indeed a considerable number of these watershed giants have yet to be assigned their relative positions as to altitude. There should certainly not be a difference of many feet between Mounts Temple and Hejee, Lefroy, Neptuak, Hungabee, Ringrose, Green, Huber, Liddle, &c. (see map)

The above-mentioned range of ten peaks lying upon the actual watershed, runs south and west from Mount Hejee. Between the peaks are slender precipitous couloirs of ice, the largest of which is upon No. 8, Saknowa, curving in its descent like a bended bow set on end, and having a vertical height of over four thousand feet. None of the couloirs upon this western side are suitable to ascend.

Mount Neptuak, the ninth peak, was subsequently seen from the Wenkchemna Pass, from the east side of which it rises, strongly suggests the Matterhorn, and is about one thousand feet higher than Mount Sir Donald in the Selkirks. At the base of the range runs a glacier, largely hidden by debris, with large lateral moraine.

I have described this Wenkchemna range (named like the valley and river and pass at its head, for the tenth peak, Mount Wenkchemna) as a whole, though not all of it was visible from the foot of Sentinel Pass. Upon looking back at the letter from the Minnestimma lakes, I observed that it would be possible by continuing along the right of the arete which ran north from Sentinel Pass to the top of Mount Temple and

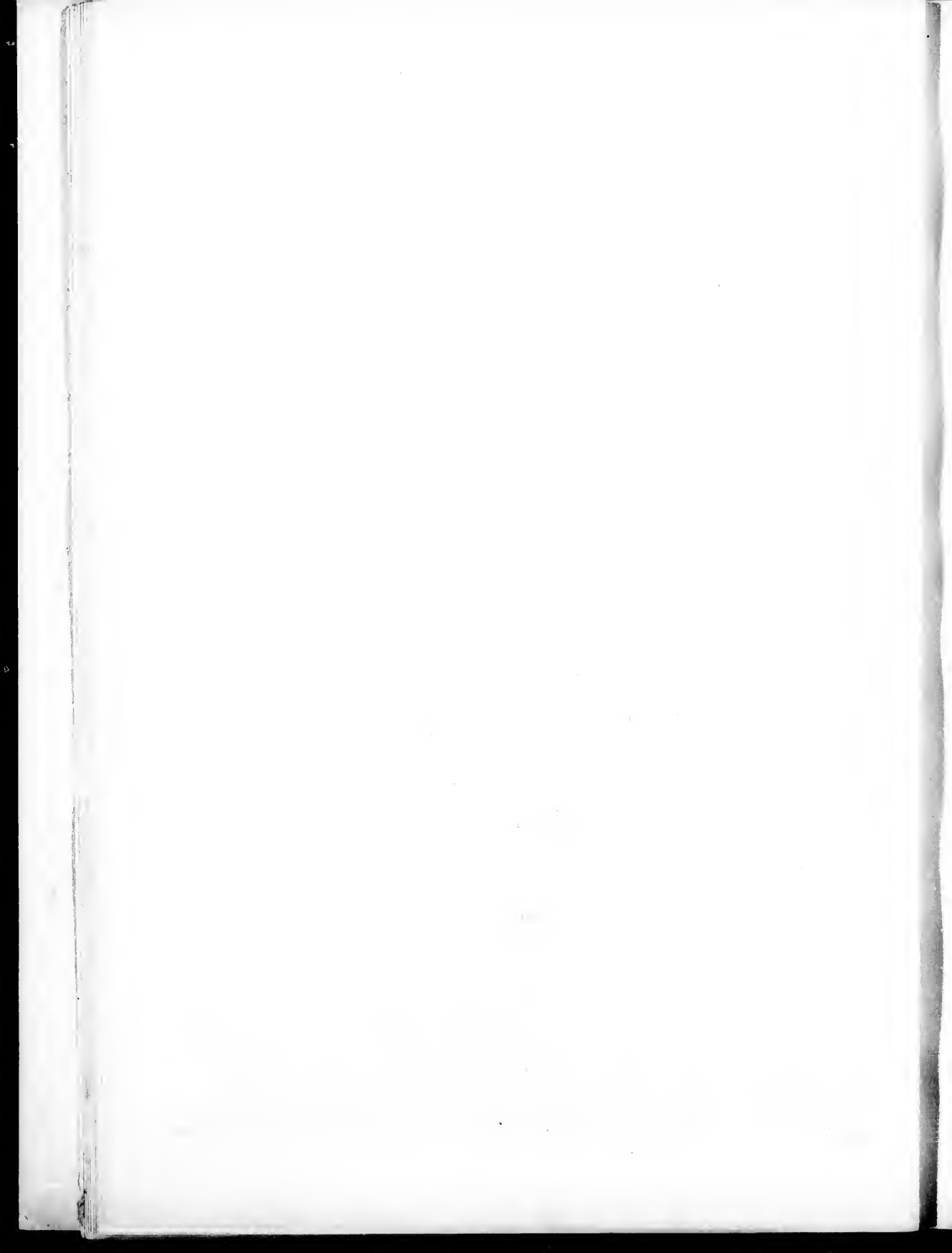


below it, to avoid the two perpendicular cliffs or steps of hard stratification seen in profile from the camp. There was some doubt about surmounting the level of the second or higher of the two, but could this be passed, I felt sure that the easy lime stone slope on the western side could be reached and the summit gained. This, as it afterwards proved, it was possible to do.

Skirting the upper slopes on the western side of Weukchemna Valley, with the Sentinel and Cathedral upon our right, we finally reached the level of the valley at its head, where two small lakes appeared. These, though small, become from the wonderful beauty of their surroundings, the peers of any lakes in the Rocky Mountains. The whole Weukchemna range is reflected in their black water, though, of course, only a section is seen at any one point, since they are so small.

A broad snow pass led into a valley beyond to the south, between Mount Neptuak and Mount Weukchemna, of which I have already spoken as the Weukchemna Pass. As it was too late to think of ascending this, we began to climb the steep rock slope which we believed led up to that snowy pass seen from Notre Col, which I have already mentioned as Wastach Pass, but which was as yet uncrossed, and by which we hoped to regain the Wastach Valley and our tent.

The ascent proved difficult in places as the rocks were loose and there was lack of handhold. The bed of the stream proved much better than the ledges. When we reached a broad sloping plateau of broken rock, just below the summit, it began to hail, and from the summit, 8700 feet above the sea, we discerned through the driving sleet a very steep descent, unfit for glissading. We descended upon the right side of the snow field, where the junction of snow and rock formed a miniature gulley, less steep than the main slope and offering handhold. The slopes below were less steep and we were soon traversing a series of quartzite plateaux to the right. Upon leaving the snow slopes, we unroped, and H., carrying the rope, walked in advance. Observing that the easiest way of descent to a plateau of lower level was by a short, easy slope of soft snow, we were only too glad to use it. The field was compressed between two buttresses of rock, some distance ahead of us, and I asked H., who was a little in advance, to test it for us for ice, but he, understanding me to mean crevasses, and seeing none, stepped upon it without more ado. Instantly his feet shot from under him, and he disappeared over the curving slope, which became suddenly steep at this place. The melting of the field above had, of course, made this narrow portion icy. He stopped himself fur-



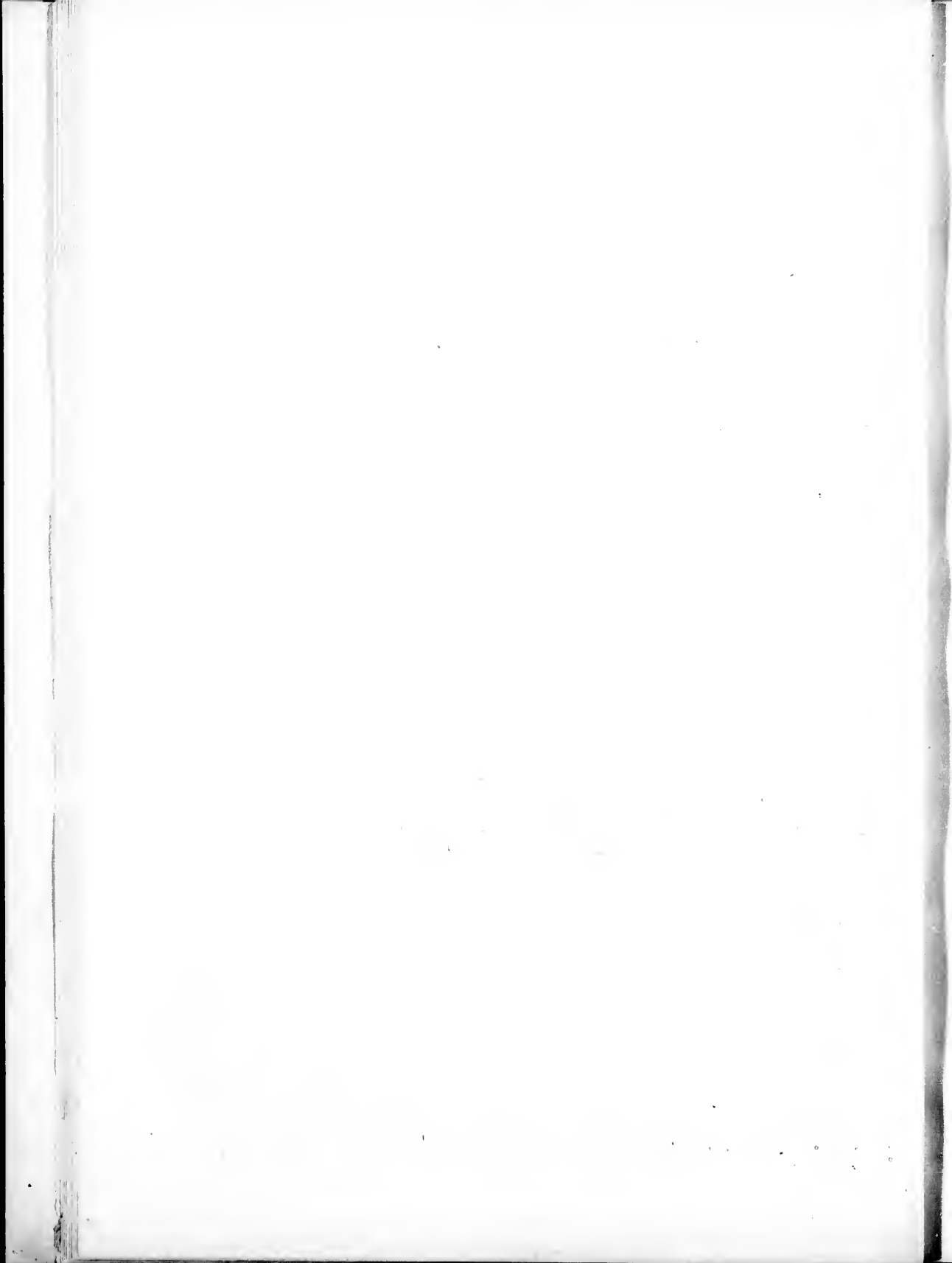
ther down, where the snow became soft again, but, as he dramatically described it, with his feet dangling over a bergschrund, and just in the nick of time. I did not investigate the bergschrund, as it took me fifteen minutes to cut steps down the shining path of his descent. H. resigned from further climbing, though in pursuit of the mountain goat, in which, being a fine shot, he was eminently successful, he subsequently got into some very exciting situations.

The others arrived that night from Lake Louise, but the weather continued stormy for three days and it was not until Friday that we again crossed the Wastach Pass, and ascended the snow fields to the top of Wenkchemna Pass, 8800 feet above the sea. I remained a considerable time on the summit, taking photographs and bearings. The view down the Wenkchemna Valley was very fine and the resemblance to the Matterhorn of Mount Neptuak, east of the col, has already been noticed. From this Pass, also, I obtained my only distant view of Mount Temple from the south, seen over the tops of the Cathedral and Sentinel.

H. and F. returned after lunch to the camp, while W. descended to the level of the valley beyond, to gain information concerning the pass at its head. He reported a glacier and neve at the head of the valley, but could give no definite information about it. As time was passing rapidly and much remained to be done, I desired to explore this pass on the following day, but was unable to persuade any of the others to consider the project except H., who, in the hope of seeing goats, promised to join me, if sore feet would permit, but next morning he deemed it wisest not to go. The others were quite naturally weary of camp fare and desired to spend Sunday at Lake Louise.

Thus, while not relishing the idea of exploring alone, I felt that this was perhaps the only opportunity I should have of settling the open question about the valleys back of Mount Lefroy. And indeed this proved to be the case, for the information acquired on this expedition, combined with that obtained on my expeditions in from Hector, gave me the directions and number of the ranges in this vicinity. Nor was there any other chance of making this trip, since our subsequent visit to the Wastach Valley was a short one, and occupied solely with the ascents of Mount Temple and Hazel Peak.

Crossing the Wastach and Wenkchemna Passes, I reached the level of the rocky, desolate, treeless valley beyond. This I have called Opabin or Rocky. It runs nearly east and west and the stream which flows from its glacier may be,



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as I shall suggest later, the headwaters of the Vermilion River. The descent from the Weaukehemna Pass into the Opabin Valley was over broken rock and scree. Immediately below the pass stood a tall limestone pillar, serving as a good land mark where to turn upward on my return. For from this side the peaks of the watershed are merely a succession of tremendous walls, all looking about alike, so that it would not be difficult to confuse them.

As I advanced up the snow troughs by the side of the glaciers right lateral moraine, it was necessary to keep a continual lookout for "shooting" gullies in the cliffs which covered the vicinity with debris*. At last I gained the glacier and it proved quite free from crevasses.

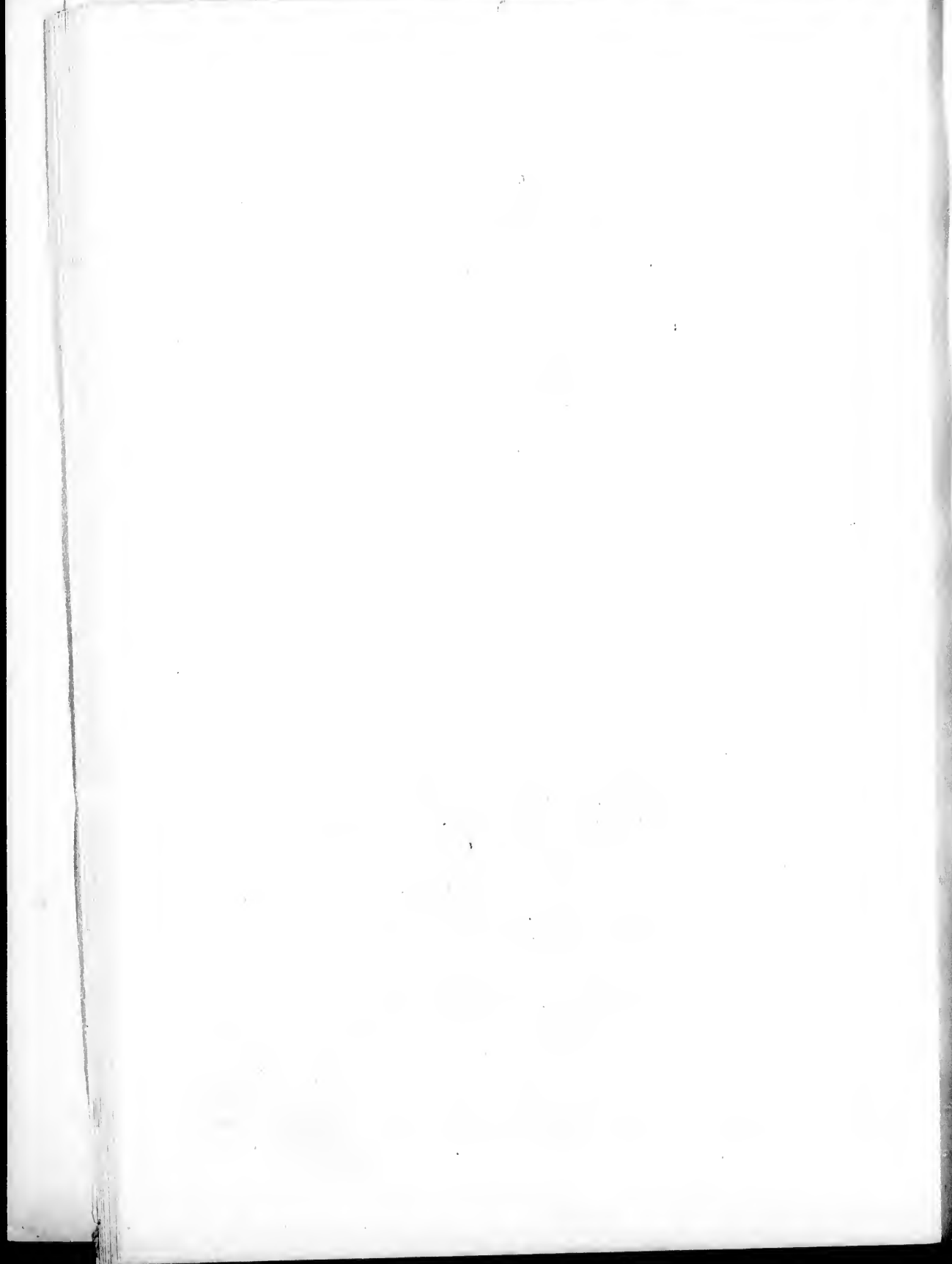
It was only 9.30, and the sun's rays had not yet reached this part of the valley, so vast were the walls on either side. The neve was, therefore, coated with the morning crust, and as the slope was not steep, except near the top, I had no difficulty in reaching the summit of Opabin col at 10 o'clock, 9000 feet above the sea.

Before me I saw a broad valley, destitute of vegetation, and walled on either side by lofty, precipitous cliffs, the glaciers at the feet of which resembled the dashing waves of a stormy sea. From my feet downward swept the neve, terminating in a fine glacier below, while two lakes appeared in the rocky valley, which, for the sake of uniformity, I have known as the Opabin lakes.

To the left of the col rose a gigantic peak, or, more properly, a "peaked" wall, which bids fair to occupy a prominent place as regards altitude among the other mountains of the region, and, when regarded from a climber's point of view, is impassible from the north side, unless it be possible to climb a wall. This peak, which I photographed from the top of Opabin Peak, 9400 feet above the sea--a bit of stiff rock work to the right of Opabin col-- I estimate it to be about 11,700 feet, and I have called it Mount Biddle, for A. J. D. Biddle of Philadelphia, an extensive and enthusiastic traveller.

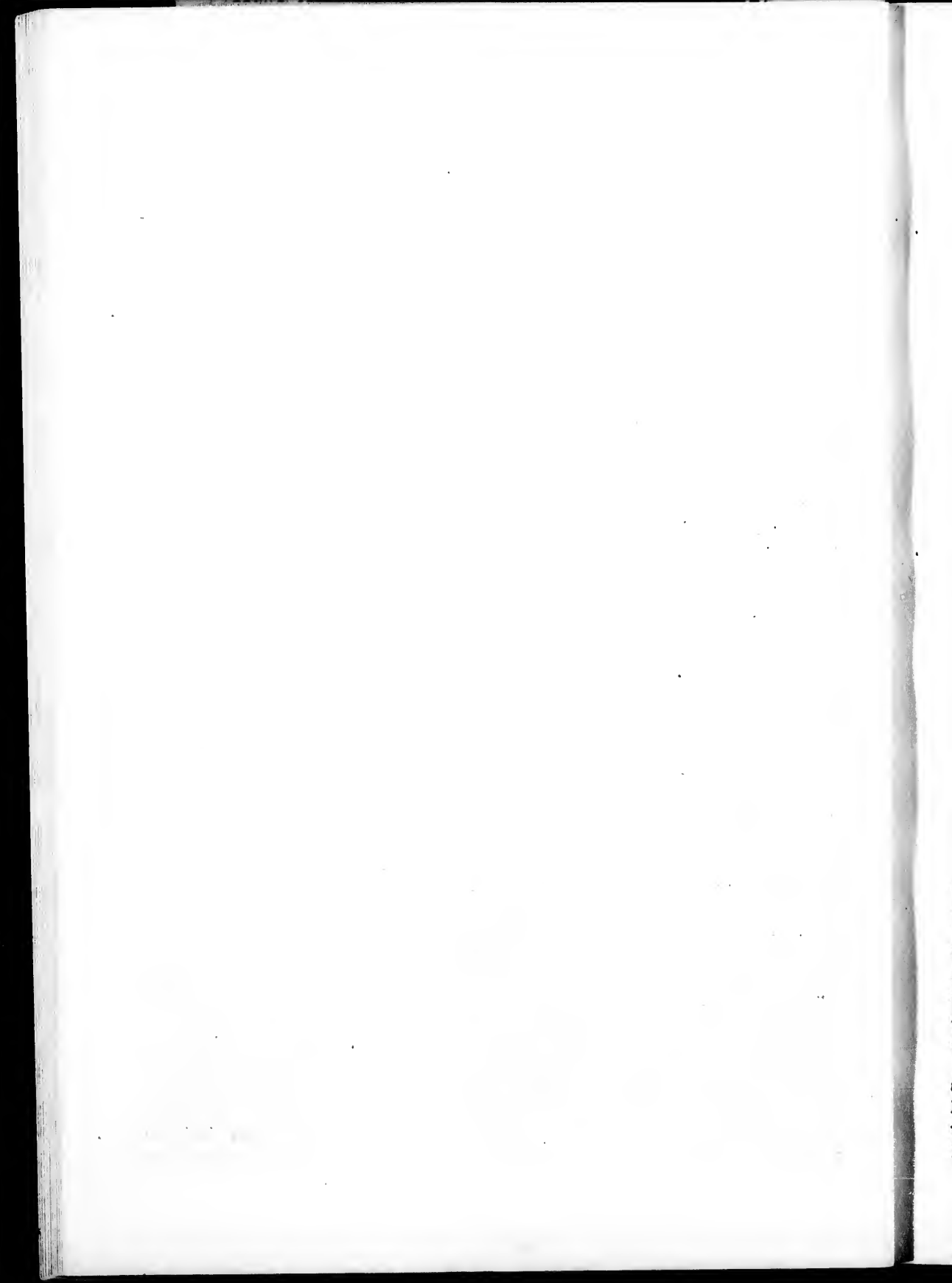
I could obtain no definite information at this time concerning the pass into the Louise Valley, which I had hoped would be in evidence. The peak north of Opabin Peak I have named Mount Ringrose, for A. E. L. Ringrose, of London, an ex-

* The largest rock fall I saw in the whole region was upon the western side of Mount Neptuak, in the Weaukehemna Valley, near the bottom of the Weaukehemna Pass.



tensive traveller, and of great familiarity with the Rockies. It is the axis or pivot for two subordinate wings or ranges. To the west of the pass beyond the valley above mentioned, was a range, topped by two handsome glacier-bearing peaks, which I have called Mounts Schäffer and Topham, the first in honor of Dr. Charles Schäffer of Philadelphia, a botanist of national renown, and one of the first and most constant travellers among the Rockies and Selkirks, upon whose flora he is a leading authority; and the second for the intrepid ascender of Mount Sir Donald in the Selkirks. Through a depression in the ridge to the right were seen two great rock peaks of about equal height, one upon the watershed and the other connected therewith, being separated from the first by a notch or depression. The first of these I subsequently found to be Mount Green, the long white ridge at the head of Lake Louise, its precipitous walls on this, its southern side, containing practically no snow nor glacier, so abundant upon the northern face. The second or southern one I have named Mount Huber in honor of Emil Huber of Lurich, who with Topham shares the honor of the ascent of Mount Sir Donald.

And here I may as well say a word concerning the Temple-Lefroy question, which, no doubt, every visitor to Lake Louise has had occasion to discuss. Neither the Railroad map nor Prof. Dawson's map places Mount Lefroy directly at the head of Lake Louise, but a little further to the east, and Mount Temple still further to the east. Those who read in his delightful work "Among Selkirk Glaciers," Dr. Green's account of his hurried visit to Lake Louise, and notice the cut entitled "Lake Louise and Mount Lefroy," are likely to regard the long, white ridge which forms the back ground as being Mount Lefroy. As a matter of fact, this is misleading, for a closer scrutiny of this cut shows a fine, helmet-shaped peak, upon the left, whose western arete is just seen outlined against the long ridge. This I had always known as Glacier Peak, the name given it by W. J. Astley, proprietor of the Louise Chalet, who always maintained that Mount Lefroy was the great helmet-shaped, ice-capped peak, so well seen from Laggan to the southeast. The final solution of this question I believe to be as follows: A photograph in Dr. Dawson's "Report" shows the general range of the Rockies from a ridge northwest of Laggan. The peak in the center of this which he says he himself named "Mount Temple" is the ice-capped peak to the southeast seen from Laggan, which I ascended from Wasatch Valley. The "conical" peak further to the right, he says is Mount Lefroy. Now, by a close examination of the mountains

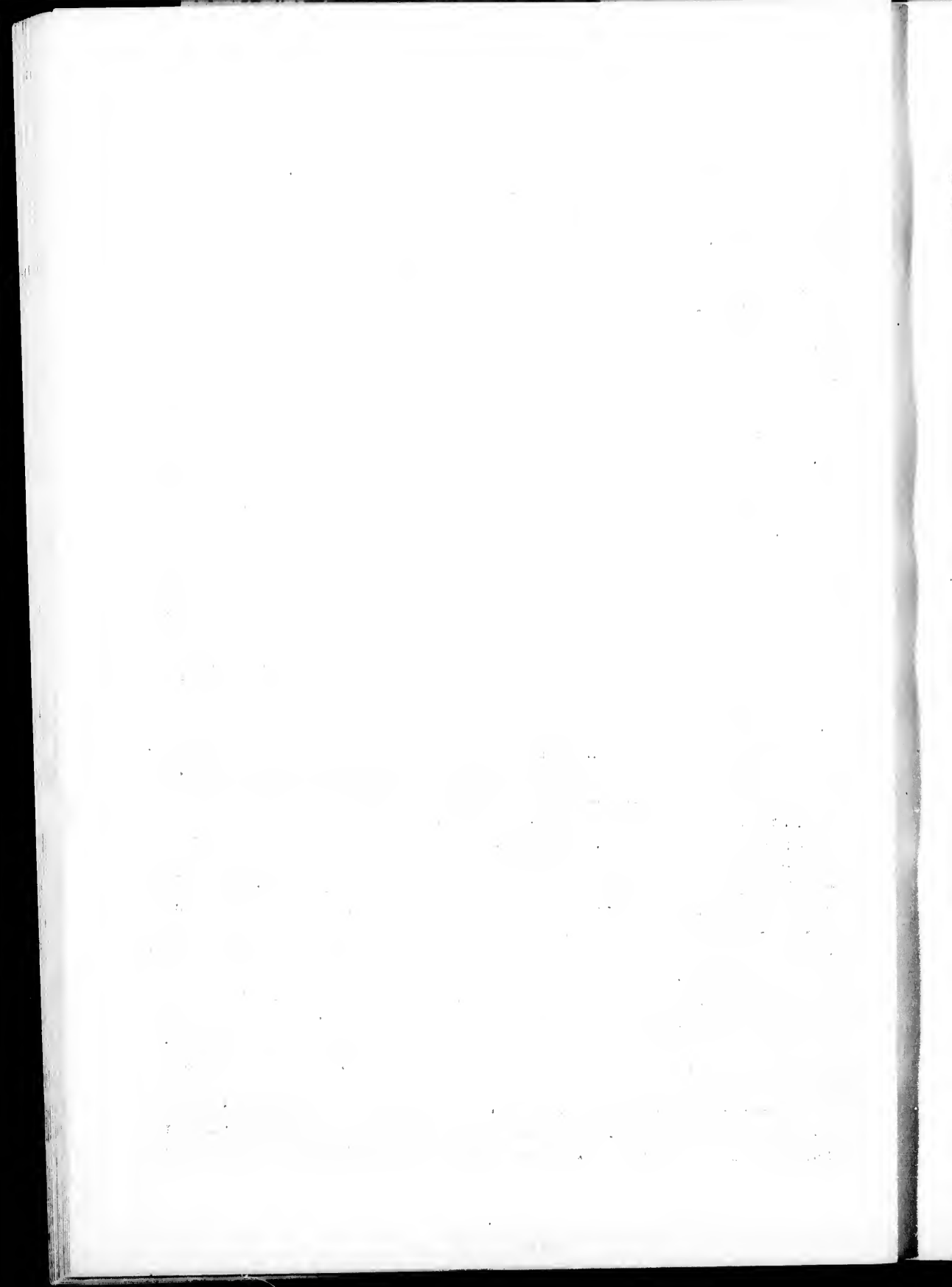


in the foreground, I have identified "Goat Mountain" and the twin summits of Hazel Peak by their peculiar slopes. Immediately back of this rises the peak which he calls "Lefroy." The appearance of this peak is exactly that of the peak south of Hazel Peak, and indeed, as the picture shows, it can be no other. This is the peak which Astley calls Glacier Peak. It is in reality Mount Lefroy. I have photographed it from the top of Hazel Peak and from the great neve plateau on the right and below the long white ridge seen from Lake Louise. There ought to be no further confusion between Mounts Temple and Lefroy.

The bearing of this upon the peak "Mount Green" is as follows: The identification of these two mountains left the long white ridge back of Lake Louise without a name. Several were suggested, but I have known it as Mount Green, in honor of the one to whom we are indebted for introducing us to the Selkirks. And the twin peak to the south I mentioned on the other side of the water shed, separated from Mount Green by a notch or depression, I have called Mount Huber for Emil Huber of Zurich, who, with Topham, succeeded on Sir Donald where Green failed, though profiting by his failure in choice of route. The height of Mounts Green and Huber I estimate at 11,700 feet.

I photographed the surroundings, descended the peak, neve and glacier leisurely, and was travelling along one of the snow gullies by the old moraine. On reaching the top of a rise of rock, I looked down upon a herd of eleven goats lying or standing upon the snow not twenty feet away. They did not remain long, but the narrative made H. wish he had seen them.

I watched the goats as they climbed the snow slopes, waiting their turn to get upon the cliffs, and making ample allowance for stones dislodged by their brethren, until the last had disappeared over the Weukchemna Pass. Then I began to ascend slowly as the sun was hot and there was no water upon this side of the pass. I had completed about three-fourths of the ascent, and was resting among some large boulders, when, attracted by falling stones, I espied two yellow objects circling the ledges to my left. My glass revealed two silver tip bears, who, scenting me, stopped to investigate. I did not move, and, finally, perhaps alarmed, they turned around and were soon out of sight around the corner. I then lost no time in crossing the Weukchemna and Wastach Passes to the tent, and next day, Sunday, August 12th, returned to Lake Louise.



Monday we ascended Mount Piran, and on Tuesday F. W. and I made an expedition up the Bath creek. This stream flows from the northwest into the Bow River, from that large glacier with its fan-shaped ice fall, seen in the distance from Loggan. This glacier is upon one of the Waputtehk group of mountains, which are as yet unexplored in detail. My object was merely to investigate the group from one of the nearer peaks.

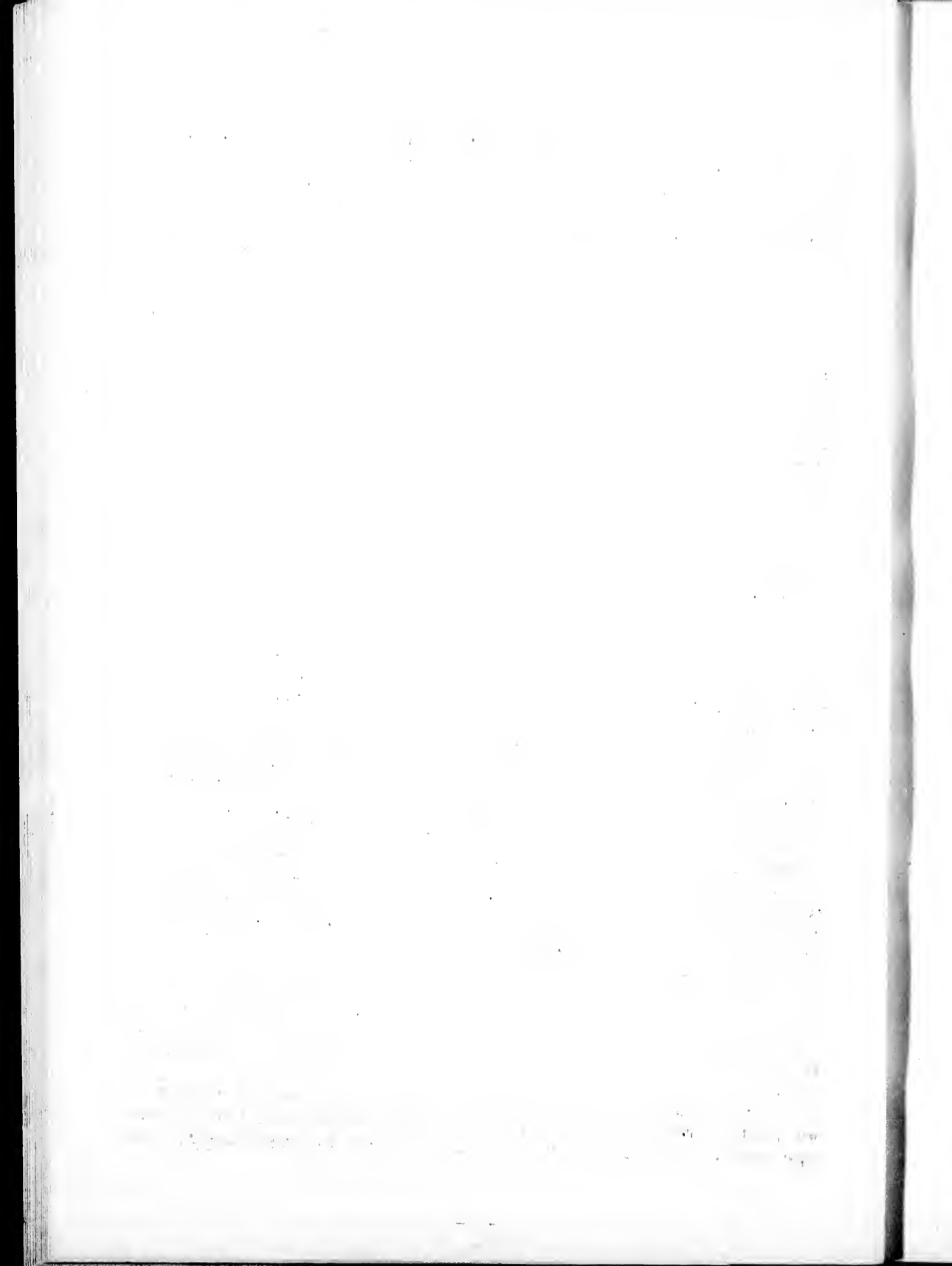
We were taken up as far as the Bath creek on a hand car, which was to meet us at six in the afternoon, and followed an old logging trail for a mile or so, and when it failed we took to the river flats and then to the thick timber. About four miles above the railway the stream forked and following the right branch we then ascended for an hour through the thick forest. Emerging thence we climbed slopes of sharp broken lime stone, requiring the use of gloves. At a point two hundred feet below the summit W. and I set up our cameras, but F. freed from such encumbrance proceeded to the top.

The view to the east was obstructed by our peak, but the whole Lefroy group was seen from top to bottom. Mount Temple was furthest to the east, while further to the west the ice-capped summit of Mount Lefroy, and Mount Green with its great ridge here seen in profile, rose like a needle, while around them clustered the lesser peaks. This was my first, and, indeed, my only view of this group from an outside point of any elevation. The whole scene was softened and mellowed by the blue haze.

Nearer to us, just across the Bath Creek Valley was the long, flat peak with its fan-shaped ice-fall, seen from Loggan. This fall descends from a long, flat glacier above to a similar parallel one below. The latter was very long and disappeared through a depression to the northwest, where it formed the sky line. Further to the north the distant peak of the Waputtehk group appeared, inviting exploration. The foreground of the group, an artistic contrast of valley and glacier and rock, relieved by nearer snow fields, was singularly attractive. The point on which we stood was 8600 feet above the sea.

We saved several miles of forest by descending to the south and arrived ahead of time at the appointed place. A rapid ride on the hand car to Loggan, during which I was in great fear of meeting a freight train, closed this pleasant day.

Devoting next day to rest, writing and needed repairs, we left on Thursday, August 16th, with horse and provisions for camp. We tried the east bank of the Wastach River, but



the pack was loosened at least a dozen times in the dense woods, while the horse, sinking through the moss into concealed holes, became almost unmanageable, and we barely reached the tent by nightfall.

I called W. & F. at five o'clock next morning, Friday, for we were to try the ascent of Hazel Peak, reserving Mount Temple for Saturday. Crossing the two streams on logs, we ascended the bed of a small stream between two great buttresses of quartzite. Above these, at an elevation of about 3200 feet above the sea, came slopes of broken lime stone. Our reaching the top of Hazel Peak depended upon our ability to connect with a slope on the other side, extending to the top, but inaccessible from the Louise Valley. The existence of a "step" or perpendicular cliff at the top and to the right of the long limestone slope above us rendered such connection a matter of conjecture.

Near the base of this slope W. found some scattered trilobites, and soon I picked up some more. No bed, however, could be discerned, though we searched for it at the time and upon our return. Upon reaching the top of the long slope, a steady pull of over two thousand feet from the valley, a superb view greeted us. To the west lay the Louise Valley, beyond which Mounts Whyte*, Despigne†, Nichols° and Green loomed weirdly through the hazy atmosphere. The upper portion of Mount Lefroy with its glacier walls seemed very near, across the narrow valley of the Mitre glacier. The slope we desired was easily attained by continuing to the right on the west side of the arete, and we easily reached the summit, 10,400 feet above the sea.

Here we remained one hour. The haze rendered photography useless for the distant peaks, many of which were faintly visible. On a clear day this point would, in my judgment, be the finest scenic point in the whole group, not excepting Mount Temple, which is itself such a magnificent feature in the panorama. The northern slopes of Hazel Peak bear a large glacier, well seen from Goat Mountain, which descends from the two peaks forming the summit. We were upon the southern

* Named previously by W. J. Astley for Superintendent Whyte of Winnipeg.

† Named for Edouard Despigne of Geneva, my companion on the Matterhorn, September, 1892.

° Mt. Nichols, north of the notch, which I named for Rev. H. P. Nichols, my companion on Mount Fox, summer of 1893.

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peak, the higher of the two, and the cairn which we built was well seen from the trail to Lake Agnes. We accomplished our descent to camp without difficulty, arriving at four o'clock, a total time of nine hours. The time could easily be shortened to six.

Next morning I called W. and F. at 4.30 A. M., and in an hour we were ready to start for a trial upon Mount Temple. In ascending Sentinel Pass we kept to the left, as before, and after cutting steps up the ice slope reached the bad rock slope, of which I have spoken. We were longer upon this than upon any other portion of equal length upon the whole mountain, and when we reached the top of the pass, the possibility of three or four thousand feet more of such slopes was far from reassuring. The last three hundred feet occupied us over an hour, for we made but little progress in the slippery stuff.

After a rest of a few moments we began a gradual ascent from the col on the east side of the arete, and proceeding up a wide gully set with a series of ledges, we were soon upon the sloping mountain side, among a great number of low buttresses or columns obstructing the view while near, and all looking alike at a distance. It was extremely difficult, therefore, to follow the route that I had outlined from the Minnestimma Lakes. At length, however, we came upon a level with the top, the first or lower of the two cliffs or "steps" seen in profile from the camp. Leaving now the steeper ledges by which we had turned this cliff, we ascended diagonally upward to the right along an easy slope of smooth rock partially covered by a stratum of slippery scree, reaching the foot of the hard quartzite cliffs or stratification, which forms a continuation of the second or higher of the two "steps" above mentioned. The surmounting of this stratification was the doubtful point of the ascent, for the cliffs were steep and the ledges few, and it would be necessary to try one of the water courses or steep gullies. After skirting the base of these cliffs for a considerable distance, and finding no gully sufficiently attractive, we finally chose one that led us to within about twenty feet of the desired level. We left it here and by a series of maneuvers along the ledges to the right succeeded in gaining the easy slope above.

At this point a suggestion was made by F. that we continue up the east side of the arete, which looked about as good as the west side had done from camp. W. was in favor of the west side, in which view I finally concurred, and we immediately ascended a small snowfield and crossed the sharp ridge, marking the spot in order to recognize it on our returning. And now for the first time since leaving Sentinel Pass we looked down upon our camp and the Wastach Valley.

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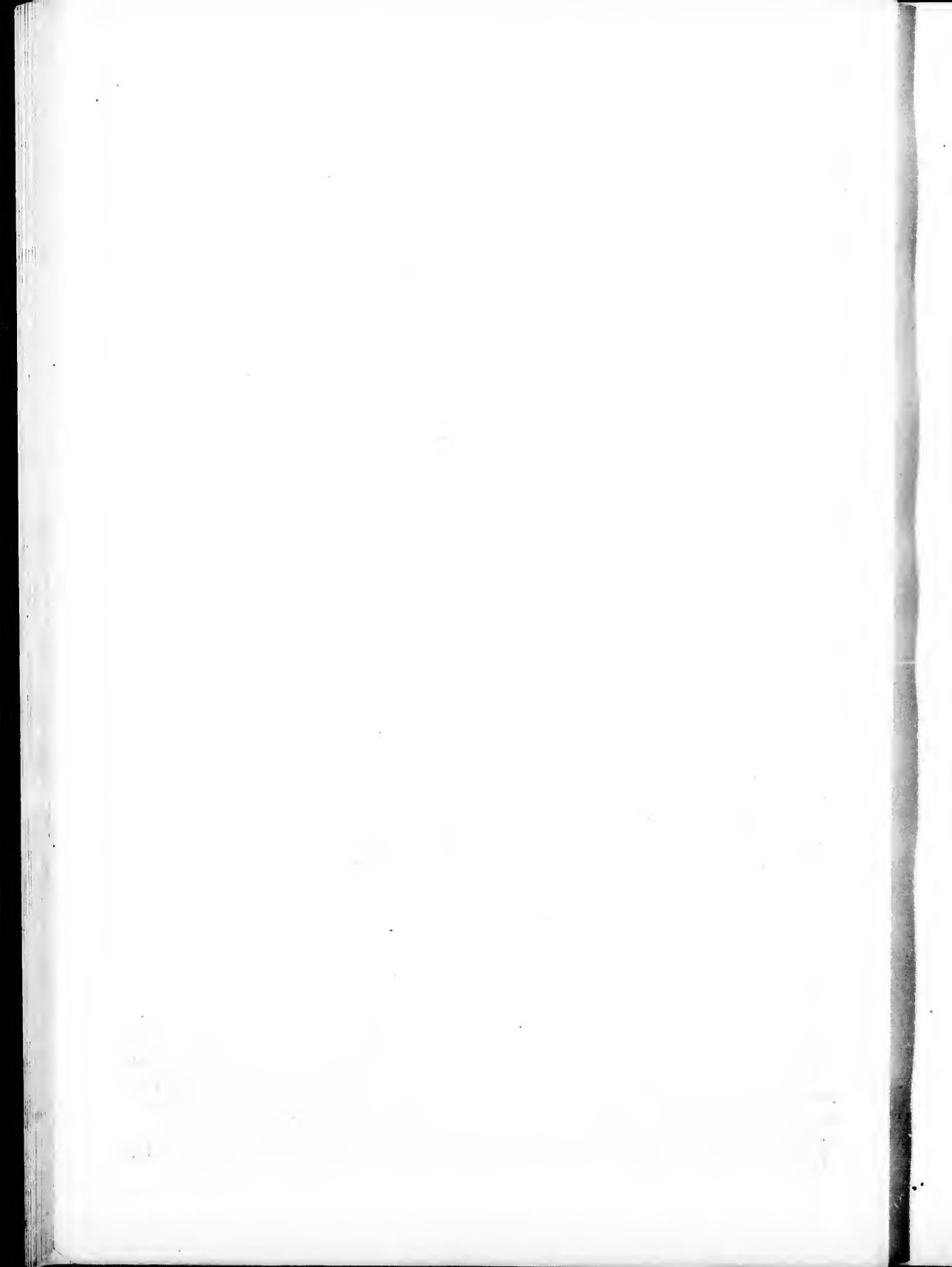
The remainder of the ascent to the summit was along the west side of the arete, up an easy slope of limestone. The cliffs to the east steepened as we advanced, and had we adopted the suggestion of F. we would probably have been beaten. Some of the gorges upon this side were very grand as seen from the arete, the contrast of the yellow limestone cliffs and white snow in the hollow being very beautiful, indeed.

At one o'clock we had reached the summit, where we built a cairn in a conspicuous place against the snow, well seen with glass from Goat Mountain. A curving cornice, rising and overhanging the north face, shut off our view of Bow Valley and of Laggan. All the peaks of the group appeared like spectres through the haze, and only the summit itself could be photographed. There were a number of cornices on the east side of the arete, which made fair photographs. I obtained a complete round of bearings, and read the aneroid, 11,700 feet above the sea, which makes Mount Temple 42 feet higher than the triangulated height of Mount Lefroy.

The western, southern and eastern ridges of Mount Temple meet in a summit of broken rock, corniced to the north, above the great glacier which sweeps down the northern face of the mountain to the great walls. Our camp was visible, a dash of white by the river, four thousand, eight hundred feet below us. The Sentinel and Cathedral looked insignificant beneath us, and the Wastach and Wenkchemna Valleys with their peaks and glaciers lay mapped out for our inspection. On a clear day the view should be indeed wonderful.

We descended to the place where we had come up upon the arete, and crossing here retraced our steps to the easy slope of scree. Missing our point of ascent up the cliffs by some mischance, we were obliged to descend by a steep gorge, near the bottom of which W. was lowered by F. to a ledge below, and F. in turn by me, I descending with their assistance in safety. The rest of the descent to Sentinel Pass was made without difficulty. We descended from the pass on the southern side, to avoid the ice slope and slipping rocks. For a time we were almost directly under a "rock-shoot" on the Sentinel, and this side should never be used in ascending. A descent, however, can be made more quickly and the rocks are better upon the northern side of the slope.

I paused upon the grass slopes to admire the sunset glow upon Mount Temple, lighting its summit with crimson and silver. The ice slopes of the Sentinel glowed like molten metal, save where the great black aiguilles, rising like watch-towers from the shining surface, cast long shadows on the ice. One could almost fancy he heard the tinkling bells of herds of cattle upon the meadows, and the peace and serenity of the alpine evening was restful and delicious to three tired



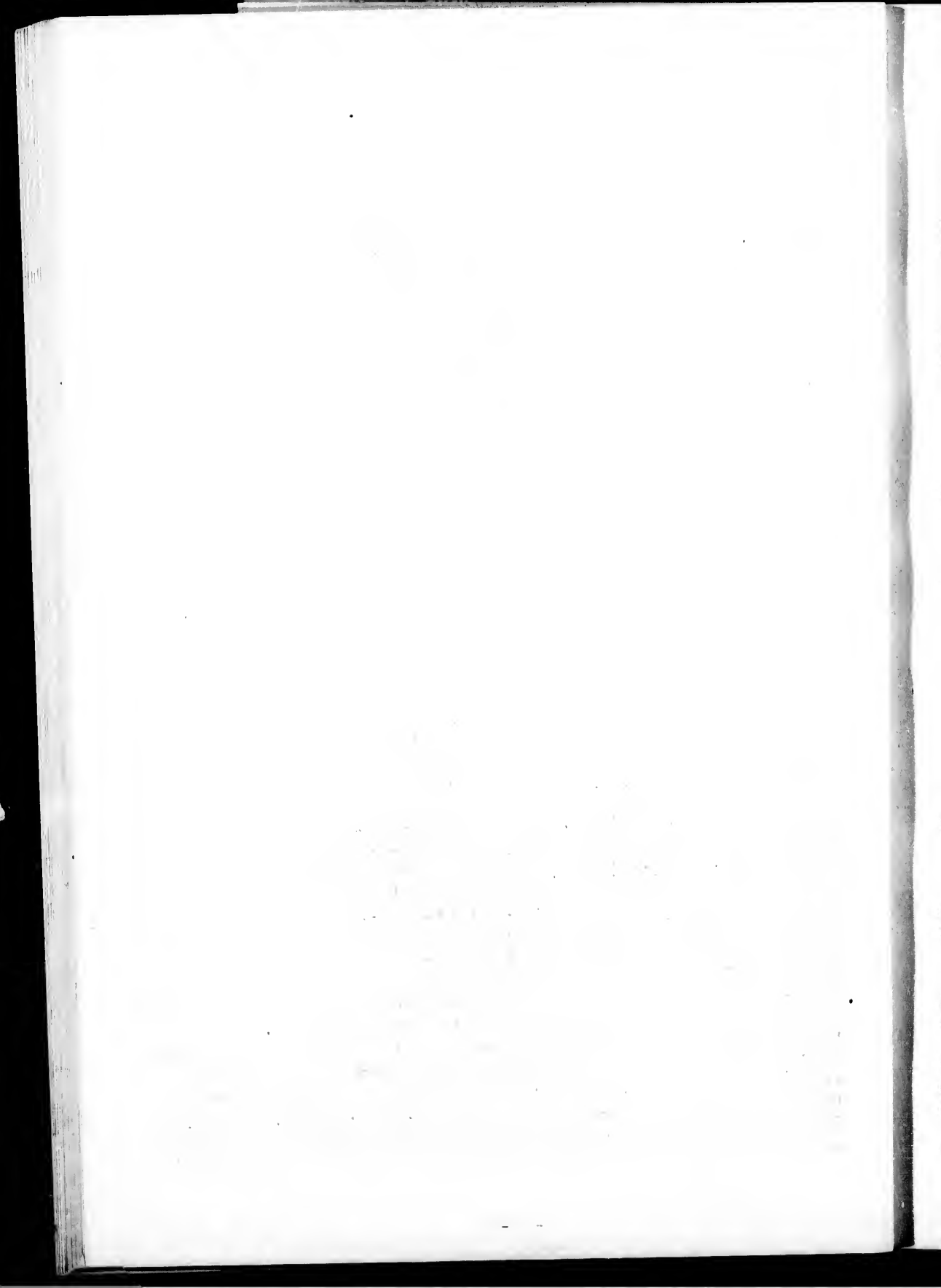
upon the meadows, and the peace and serenity of the alpine evening was restful and delicious to the three tired climbers, as was the welcome supper prepared by H., who had seen us with telescope upon the summit.

On my return to Lake Louise the following day I was pleased to find some gentlemen of Oxford, who had arrived the day of our departure for camp, and had sent us off with good wishes. They had ascended Goat Mountain with G. and from the Lake Agnes trail had seen our cairn on Hazel Peak. W. and F. had resigned from further climbing, and the necessary departure of the Oxford men was a source of keen disappointment to me, as I was greatly desirous of exploring the south side of Mount Green. Nor was I more successful in regard to a friend,* who was prevented from joining me in a proposed expedition to Mount Purity in the Selkirks; nor were two gentlemen from Boston,* who had recently ascended Eagle Peak and reached a great height upon Mount Stephen,^o able to alter a fixed itinerary to remain more than one day at Lake Louise. In spite of recollections of bears, therefore, there was nothing for me to do but explore back of Hector alone.

Foster of Cambridge University, whose fame as a hunter and climber extends from Calgary to Kamloope, and who with Huber and Topham crossed the Dawson Pass to Mount Purity. I have named in his honor a peak in the upper Wapta valley, as indicated by my map.

Prof. C. E. Fay and R. F. Curtiss, for whom I have named peaks, as shown upon the map.

Mount Stephen has never been ascended. I make this statement upon the authority of Yule Carryer of Field, of whom I shall presently have a good deal to say, who has informed me that McArthur, the Government surveyor, who is currently reported to have placed a flag upon the summit of Mount Stephen, in reality placed it among the "Pyramids" considerably below the summit, where Carryer saw it with his glass, and that McArthur himself admitted that he could get no further. I do not know that McArthur himself ever claimed to have reached the summit. He is a mountaineer of great ability, and it is doubtless due to this fact that he is currently reported to have ascended every peak in the Rockies that one can mention, not even excepting Lefroy and Assiniboine and Stephen. The fact that neither Temple or Hazel Peak showed any signs of cairn upon their summits, while little Mount Piran showed a large one, seems to the author to



I went up to Hector on the morning train and started up the valley at 8.30, following the east bank of the stream. After an hour among fallen and burnt timber I reached the Harao Lakes in the centre of a broad valley. To my right was an irregular peak with numerous small glaciers. To my left, farther on, a glacial amphitheater, in the foreground of which stood a vast solitary column, at least one thousand feet high, guarding the entrance. Its fine symmetry was enhanced by the background of blue and white and the foreground of forest green. Upon my map I have designated it as "Obelisk."

This amphitheater I did not explore. I then believed its sky line to be the notch upon Mount Green, but am now quite sure that it is the western side of Mount Despine.

Continuing along the river bank through very rough timber, I came upon a beautiful cataract. Further up, I followed a stream flowing from the left to the gorge whence it issued. Here a furious blast of wind nearly knocked me over, and I have known this as the Gorge of the Winds. A waterfall descended from a hanging glacier above, but was scattered in spray by the gusts before reaching the bottom. The peak at the head of this gorge containing the hanging glacier is Mount Huber. No ascent need be attempted from the Gorge of the Winds.

As it was getting late I returned to Hector, where I arrived at six o'clock. It was evidently impossible to do anything without making an extended expedition.

indicate that these summits had never been reached. In fact, so usual is the custom of cairn building upon even small mountains, that the absence of any sign of cairn upon one of the giants of the region, where the incentive to make a cairn would be much greater, would seem to be a practical proof that there had been no previous ascent. The author has made experiment in mentioning to some of the inhabitants of Bow Valley names of purely mythical peaks, every one of which he was informed by them had been ascended by McArthur. Whether these stories partake somewhat of the nature of folk lore it is impossible to say until McArthur himself enlightens us upon the subject. In regard to Mount Stephen, I have no hesitation in accepting the statement of Carrier that it still awaits a conqueror. Again, it is an acknowledged fact that the "esprit de corps" of a climber, which forbids him to claim to have climbed any peak upon whose summit he has not planted his axe and built his cairn, is less binding upon those to whom climbing is entirely subordinated to other things. It would be

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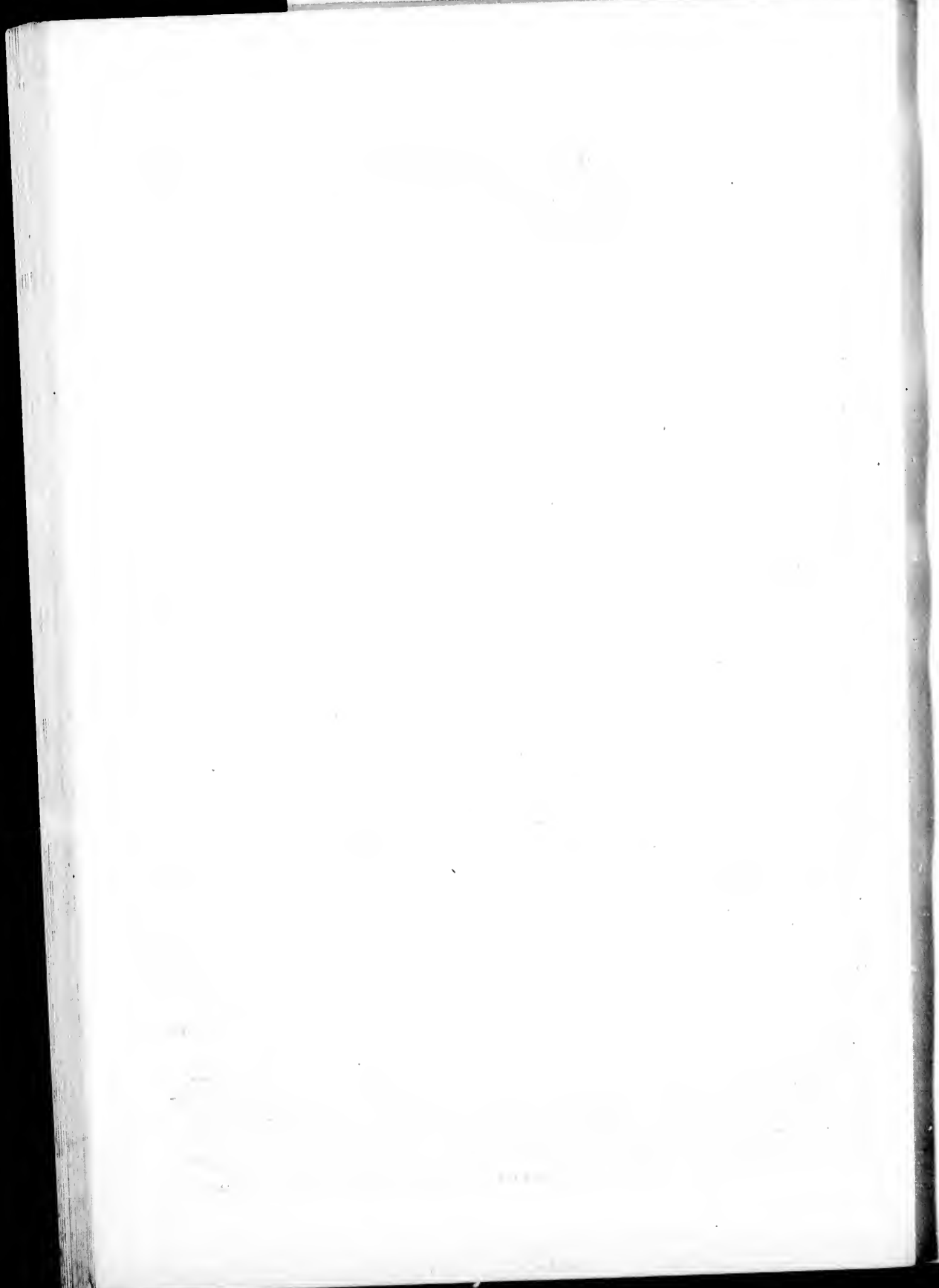
Accordingly, I made arrangements with Yule Carryer, whom I shall have occasion to mention frequently in the remainder of this account, to accompany me the following Thursday. He had never been to the region I intended visiting, and was very glad to join me.

Carryer was an Indian of education, having spent some time at the University of Toronto. He was employed by the railroad near Field. Subsequently, he made a six-days' trip with me back of Hector, and a circuit of one hundred and fifty miles over the Vermilion and Simpson Passes, to the base of Mount Assiniboine, and his keen knowledge of the woods and obliging and affable disposition made him at all times both a useful and pleasant companion.

On Tuesday, the following day, G. and I ascended Goat Mountain. This peak on the east bank of Lake Louise, is second only to Hazel Peak as a scenic point. The panorama extends from Mount Temple on the east to Mount Whyte on the west, embracing the fine glaciers of Hazel Peak, Mount Lefroy and Mount Green. I had ascended Goat Mountain in the summer of '93, before the trail to the Saddle was made, and the ease of this present ascent was a great contrast to the other.

After an unsuccessful attempt on Thursday to get a horse across the swollen Bow river and Bath creek to carry provisions for my Hector expedition, I took them down by train on Friday and started with Carryer up the stream, each carrying twenty pound packs.

the most natural thing in the world for a surveyor who has halted a few hundred feet below the summit of a peak which he could not reach or did not care to reach, to mention that peak as one that he had climbed, using the word in a loose but not improper sense. The more technical meaning, however, will be insisted upon by "climbers", among whom every ascent should be regarded as a finished work of art, not complete until the cairn has been erected upon the summit. The ascent of the peak, which I have finally identified as Lefroy, would involve a great knowledge of alpine craft, for the south side of the mountain, as I shall describe it from the summit of the Death-trap col, would involve many hours of laborious and dangerous step cutting, while from the north it rises from the Mitre glacier in one unbroken wall. From the Green glacier an ascent might be tried by the couloir, above which occurred the accident to my friend, of which I have spoken at the beginning of this account. I do not think that either Green or Lefroy would offer sufficient inducements to a surveyor to surmount their very great Alpine difficulties and



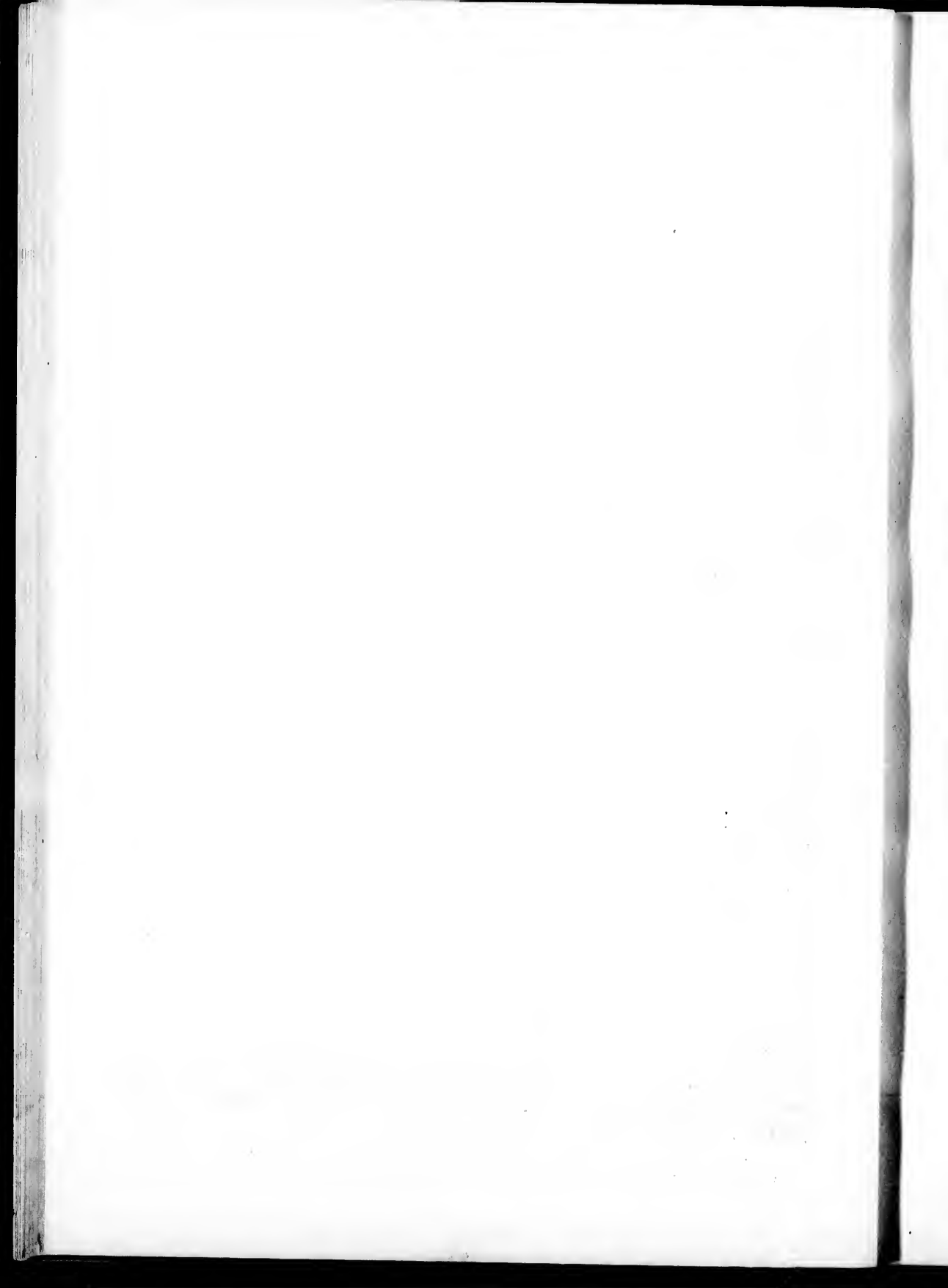
Keeping high above the valley we passed the first amphitheater below the great column. In order to explore the next, we deposited our packs upon a rock and followed the gorge to its head, where a small hanging glacier several hundred feet above barred further advance. Returning to our packs, we proceeded up the valley just at treeline, watching the unbroken walls for gullies or other possibilities of ascent. At length I recognized ahead of us the Gorge of the Winds, and the subordinate ridge east of it that I named Wirvaxy. Stopping at four o'clock by a pretty waterfall just before reaching the gorge, we explored the rock slope above, easily accessible from this point. This we followed round until we looked down into the Gorge of the Winds; but returned without observing any way of ascent up the colossal walls rising to our left, and made a resting place in a hollow of the heather slope, whence at a glance we could survey the valley beneath, with its lakes and river and peaks and glaciers beyond, while the wind in the tamarock-boughs made harmony with the music of the waterfall.

Continuing up the valley next morning we were gradually forced to descend as we rounded the Wirvaxy ridge, reaching the river bed near a small lake, which I have known as Trout Lake.

In descending to this lake by a steep slope of hard scree top-heavy from my pack, a mis-step placed me in unstable equilibrium upon my back, supported only by my axe-stick. I felt that once started downward I should be unable to stop and should probably be hurt upon the rocks below. A side-spring toward a rock that, fortunately, did not yield, enabled me to continue the descent in safety. The niceties of balance and fine calculations of chances involved in extricating oneself from precarious situations, have always seemed to me a sauce and a tonic.

Soon we came upon the western end of as beautiful a lake as I have ever seen. While showing neither glaciers nor snow upon the immediate peaks, the immense walls to the left and the cliffs and ideally pyramidal peak to the right, formed a

dangers. Let those who succeed in reaching the summits of these superb peaks enlighten us as to the existence of cairns on their summits. I have little doubt that they will find them as destitute of this adornment as I found Hazel Peak and Mount Temple.



foreground of wonderful grandeur. The northwest end, on which we stood, fringed the emerald water with a growth of pine. The southeast end facing us was encircled with cliffs five hundred feet in height from whose summit, piled high with the rocks of an old moraine, three slender waterfalls leaped into the lake. Above these as foreground listened far behind the distant snows, suggesting an amphitheater of alpine splendor. This lake, about a mile in length and slightly less in width, I named O'Hara.*

Ascending the cliffs upon our left by a gully, we reached the glacial dam. The bed of the ancient glacier behind this is occupied by a very small lake, at the base of the sharp peak of which I spoke, and which I called by the Indian equivalent, Yukness.

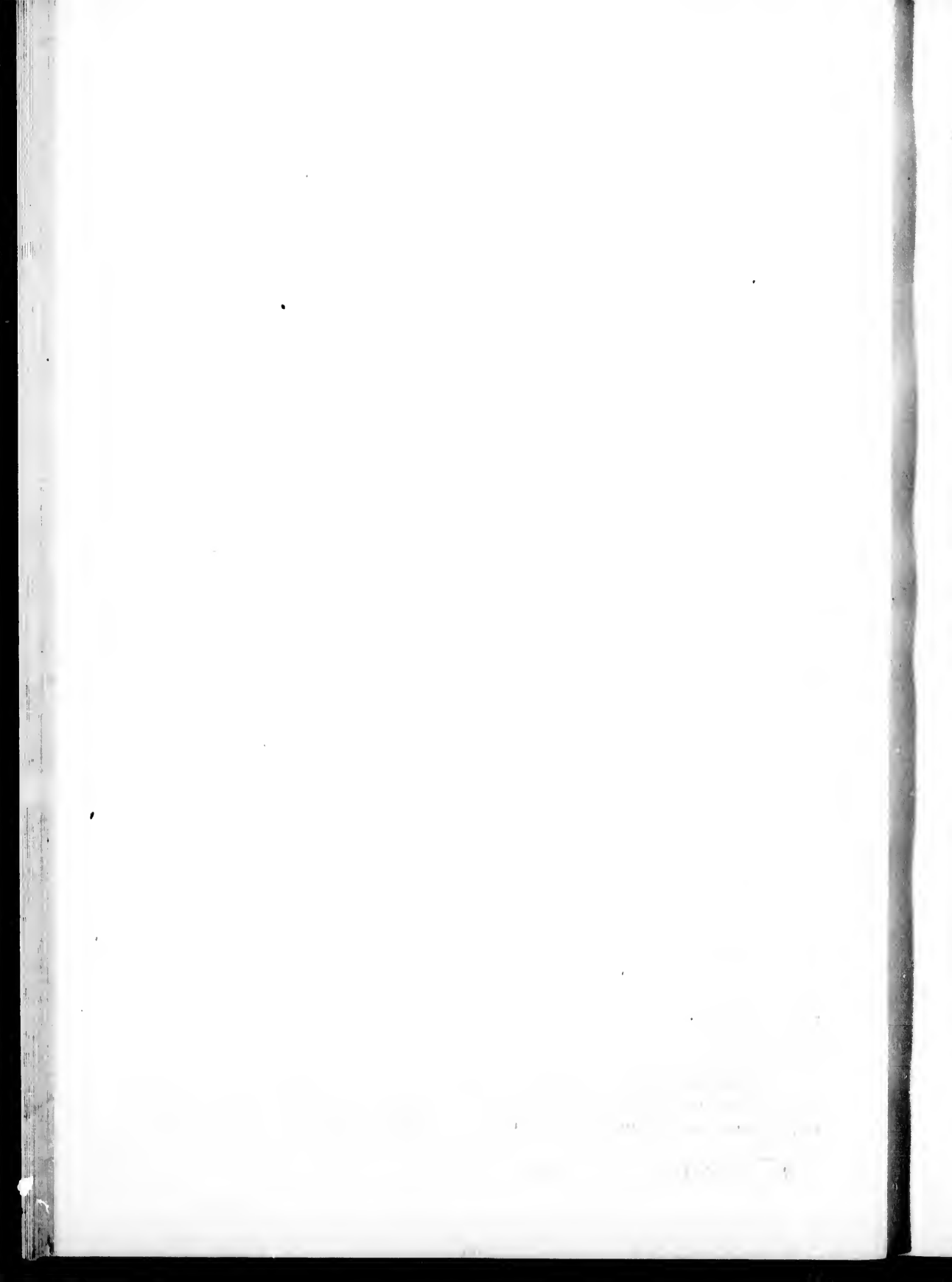
The stream at the head of this lake has cut a sinuous course resembling a rough letter S in a series of exquisite cascades down the hard stratification that lies behind, above which are a number of tiny lakes; surmounting another cliff, a scene of great beauty awaited us.

The grey quartzite lay in slabs before us, level as a floor and polished by ancient ice. From the grooves and cracks of this ancient pavement grew long grass, as in the streets of some deserted city. As we stepped upon its surface, our hot faces were cooled by a whiff from the ice fields, and before us, the great pavement gently sloping to meet it, lay a placid lake, a dark blue circle of about a half-mile diameter. The glaciers clustered around its further end, whence floating blocks of ice dotted with white the sapphire surface, while behind and above rose the slopes of a grand amphitheater, their ice fields glowing like Pentellic marble in the mellow light of an afternoon sun, like a vast Dionysiac theater, the upper tier of seats outlined against a Grecian sky.

Depositing our packs not far from the bank of the lake, we crossed the stream and gained the top of the lower glacier on the right. From this point we had a complete view of the gorge rising at right angles, above the lake on the far left, and already partially seen from the end. It was of broken rock and looked passible, providing the lower slopes of cliff and glacier could be ascended. Deciding upon the best route for the ascent, we returned to our packs and passed a very cold night.

Awakened next morning (Sunday) by the loud cries of a flock of ptarmigan, we started around the rock slopes on the left bank and connected with the ledges above. Hardly two

* For Colonel R. O'Hara. (See page 27).



hundred feet above the lake Carryer was attacked with mountain sickness and seemed unable to proceed. As he was quite comfortable when not moving, I determined to ascend without him a little distance in order to investigate the feasibility of reaching the gorge, and reached the dry glacier above. When this began to slope upward I took to the moraine on the left, and reached the bottom of the gorge. Owing to the instability, I hesitated to proceed alone. At this juncture I saw Carryer below me, on the glacier, ascending rapidly, and completely recovered from his attack. He was ascending the rocks upon the right, having crossed the dry glacier, and seemed to be making better progress than I. To cross over at this point, however, was troublesome, owing to a sharp ice arete that divided the slope. So I kept along the margin of this, getting all the while into steeper and more unstable stuff, until I reached the base of a great cliff, whose right side was encircled by the ice arete, and whose left side was altogether impassible. To cross the arete would be loss of valuable time, so I kept up the narrow gully between the ice and cliff. Soon I was obliged to take to the ledges of the cliff. There was not far to climb. A foothold, a couple of handholds, a tug, a wriggle, a moment of doubt, and I lay poised upon a fine ledge whence ascent to the col was less difficult. Carryer had found easier work on the right side, and was awaiting me on the summit.

We were standing on top of the Death-trap, ten thousand feet above the sea, the col connecting Mount Green to the left and Mount Lefroy to the right, which I had seen from below the Notch in '90, and had then given its name from the frequency with which avalanches from Mount Green poured into the narrow valley leading up to it. Down into this, in curving folds, swept the slopes of ice, breaking, as the angle increased, into ice slopes and crevasses. Far below was the Green glacier, partially seen between the walls on either side. The summit of Mount Green was not seen until we had ascended the lower slopes of Mount Lefroy, but the great ice walls crowning its gigantic cliffs had never looked so near.

But the further ascent of Mount Green from this point was impossible, or, more properly, impracticable for two men. The cliffs rose on the left in a series of outward-sloping ledges, covered with unstable limestone debris, such as I had just encountered, and apparently much worse. In addition to the instability of the footholds, a slip would incur a drop upon the sloping glacier below and a descent of nearly three thousand feet to the bottom of the Death-trap. Furthermore, to gain the first ledge necessitated an ascent over a pile of

[The text on this page is extremely faint and illegible. It appears to be a multi-paragraph document, possibly a letter or a report, but the specific content cannot be discerned.]

rock sloping off on the left to the cliffs and on the right to the glacier.

Mount Lefroy rose from the right of the col in steep almost unbroken slopes of grey glistening ice, interspersed with aiguilles and towers, and as fifteen hundred feet of step cutting presented no particular attractions to me at that time, I made no attempt to ascend it.

The view backward and downward was very fine. The gorge whence we had come looked unearthly and Lake Oesesa (or ice as I had named it) at ten o'clock, still dark green in the morning shadows, seemed infinitely far below. A roar upon Mount Ringrose opposite, a cloud of yellow dust concealing half the side of that great pyramid, and a sea of rolling stones upon the glacier below announced a fall of rock down the only visible couloir upon that peak. Thus do the giant Rockies of the Watershed sweep with artillery their avenues of approach. Mount Hungabee seen in profile also presented a very grand appearance.

After lunching by a little glacial pool whose rills ran on either side to the Atlantic and the Pacific, and taking photographs and bearings with us, we descended the gorge by the side up which Carryer had come, reaching our "camp" at four o'clock.

Returning to Lake Yukness we camped for the night and next morning ascended the Wiwaxy Pass in order to further study the cliffs of Mounts Huber and Green. After a hard pull up the water course above Lake Yukness, we finally gained the top, 9500 feet above the sea, and beheld the most consummate view, from an artistic standpoint, that I have seen in the Rockies.

From north to northwest the walls of Mount Huber shut off all view, but the valley of Lake Oesesa to the east north east was a delight to the eye. The whole course of the winding stream flowing from the blue lake in the icy amphitheater was mapped out as on a chart together with its chain of tiny lakes as far as the superb Lake O'Hara. The eye swept from Glacier Dome (as I called that portion of the Lefroy wall above Lake Oesesa) over the series of wonderful pyramids, past Mounts Ringrose, Hungabee and Yukness, nearer, to the south. Then further to the right, in the distance, Mount Biddle towered like a giant, and a portion of the Opabin Pass and the greater part of that valley upon the northwest side were visible. Then other distant peaks with Mount Odaray (Cope mountain) bearing numerous small glaciers, in the foreground, and Mounts Schäffer and Topham, previously seen from Opabin Pass, while below beautiful as ever the emerald Lake O'Hara, the cataract at its head seeming but a slender thread of

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white. Smaller lakes clustered around the cliffs beyond its southern shore, and from the top of these cliffs ran the level of the broad Spabin Valley, at about the altitude of the valley of Lake Oeesa. Mount Wiwaxy hid the mountains to the west, and turning round we saw to the northwest the peaks beyond Hector and the Narao lakes. The gorge below, with hanging glacier above, was part of the Gorge of the Winds.

The air was clear and the sun warm, and I remained two hours upon this superb point. These wide valleys and enormous walls give to the peaks an individuality and symmetry impossible in more chaotic masses like the Selkirks, though unrelieved to so great an extent by the contrast and softening lines of snowfield and neve. Each of these tall, precipitous, ideally sharp mountains was a study in itself and a rest and pleasure to the eye.

As no way of ascent in the walls of Mounts Green and Huber appeared, we returned to our "camp" in time for lunch. A subsequent examination of the cliffs from the glacial dam at Lake Yukness showed a gorge about four hundred feet above us, probably containing a glacier with a visible moraine perched high upon a ledge. This moraine, practically inaccessible from this place, I knew could be reached from Lake Oeesa, and connected with a long slope of reddish limestone to the right, which extended upward some eight hundred feet further to the base of a large rock, remotely resembling a crouching lion seen in profile. A water course had made a small gully from the top of the wall above which passed quite near the lion's nose. To climb the lion's back and gain the gully beyond his nose was an undertaking, the success of which depended on the existence of small ledges, and could only be decided by actual trial, which I determined to make the following morning.

But even while I was looking, a vast cloud of white mist came rolling up from the lake and hid Mount Odaray from view. Soon mist poured out of the Death-trap col as from some fabled entrance to Avernus, and all the tops of the peaks were hidden. The winds blew in every direction, whirling the mist through the depressions in the walls, until we were developed in cloud and only the nearest trees were visible. Then came flakes of snow, few at first, but rapidly increasing till the air was full of the driving storm. So hastily had this come upon us that we had no time for preparations, and so crouching under the boughs of a small spruce, we passed a sleepless night, keeping a roaring fire going, and watching the ground whiten and deepen with snow around us.

In the morning it was several inches in depth and we began a hasty return to Hector. Great care was necessary in

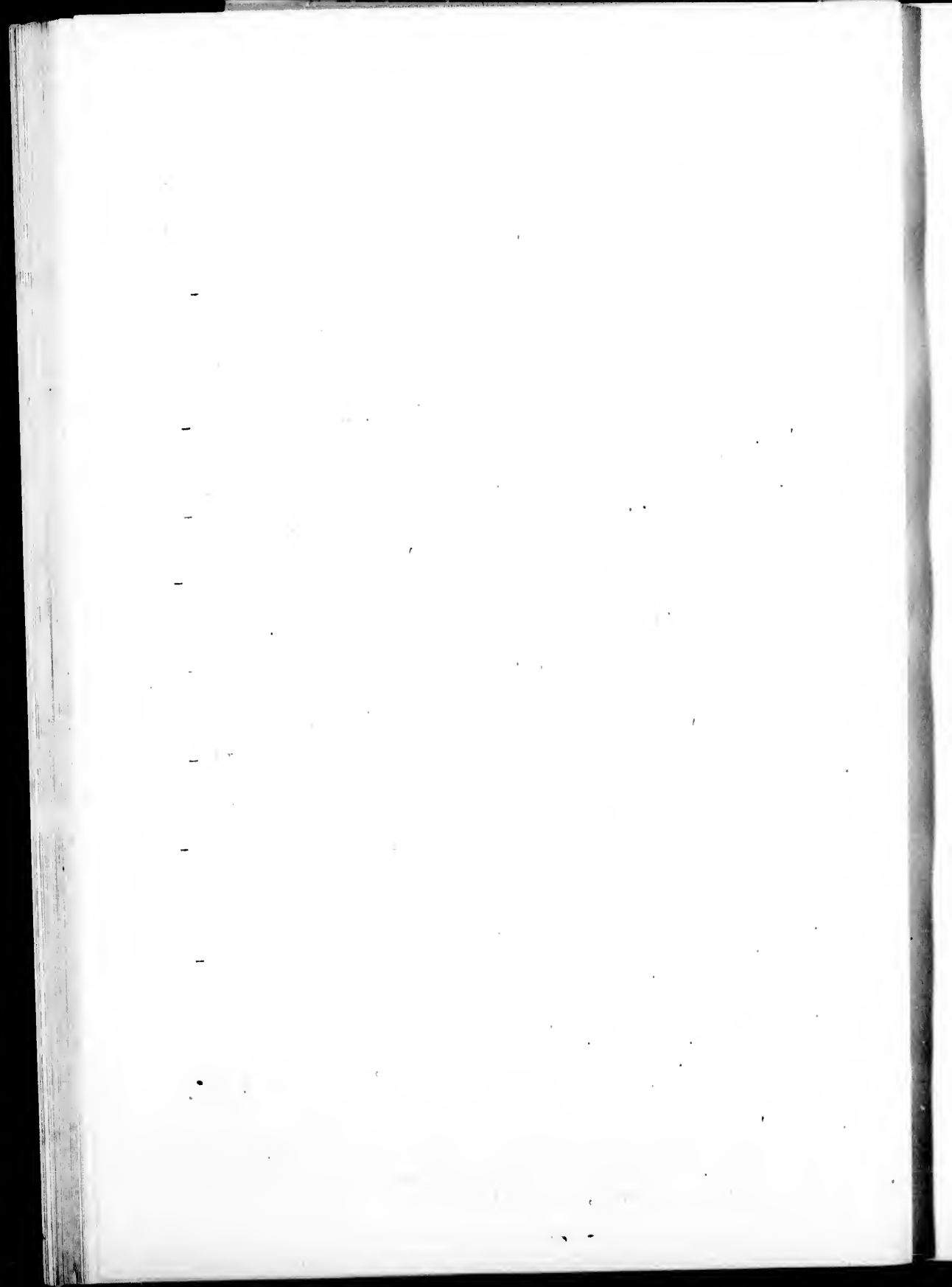
skirting the slopes of heather and small spruce above the cliffs of Lake O'Hara, as a slip would be fatal, and we carefully prepared handholds by brushing away the new snow and grasping the heather and spruce boughs below. We descended by a gorge near the end of Lake O'Hara and making a cut off from the stream were soon at the foot of the Wiwaxy ridge.

Then for two hours we struggled in the thick forest before meeting the stream again, quite near the cataract. At four o'clock we reached Hector after a six days' absence.

After an absence of five days on a trip to the coast, I returned to Laggan the following Tuesday to make an expedition to Mount Assiniboine. This peak, fifty miles southwest of Banff, I had seen from the Twin Peak at Banff in the summer of '93, and had ever since desired to visit it. A glance at Dr. Dawson's map will show that the region east of this mountain, lying between it and the White Man's Pass, is unmapped and unexplored. From the west the peak was represented as accessible by the Simpson Pass from Cascade (there called by its old name "Castle Mountain"). This pass or trail followed the Heely Creek to the summit of the watershed, descending on the other side by the Simpson River and Vermilion river to the Kootenai country. A stream was represented as flowing into the Simpson River from the east and rising at the base of Mount Assiniboine, intending, therefore, to follow the Simpson Pass as far as this stream, I arranged to meet Carryer at Castle Mountain (on the map called by its old name Silver City), he taking provisions down from Field by train, and I riding a pony down the old Tete road from Laggan.

I had previously written to a famous prospector, whom I had heard was living at Castle Mountain, and had acquired a large knowledge of the trails to the south, requesting information concerning the best route to Mount Assiniboine, but he had been unable to tell me more than I already knew.

And here I will say a word concerning a delightful gentleman, Col. R. O'Hara, whose acquaintance I had made some time before. He had made a journey with pony back from Hector previous to mine, as far as the beautiful lake which I have called by his name, and which I believe he was the first to see. His purpose having been to force a passage through to the Bow Valley, he had of course not penetrated into the amphitheatre above, which he saw was blocked, and thus he had not ascended the series of cliffs to the level of Lake Oesa. Just as I was leaving the chalet at Lake Louise, with my pony, Col. O'Hara returned from an attempt to penetrate by the White Man's Pass into the region that I was about to try from the Simpson Pass. He had been stopped by forest fires which were raging south of Banff, and filled the atmosphere with



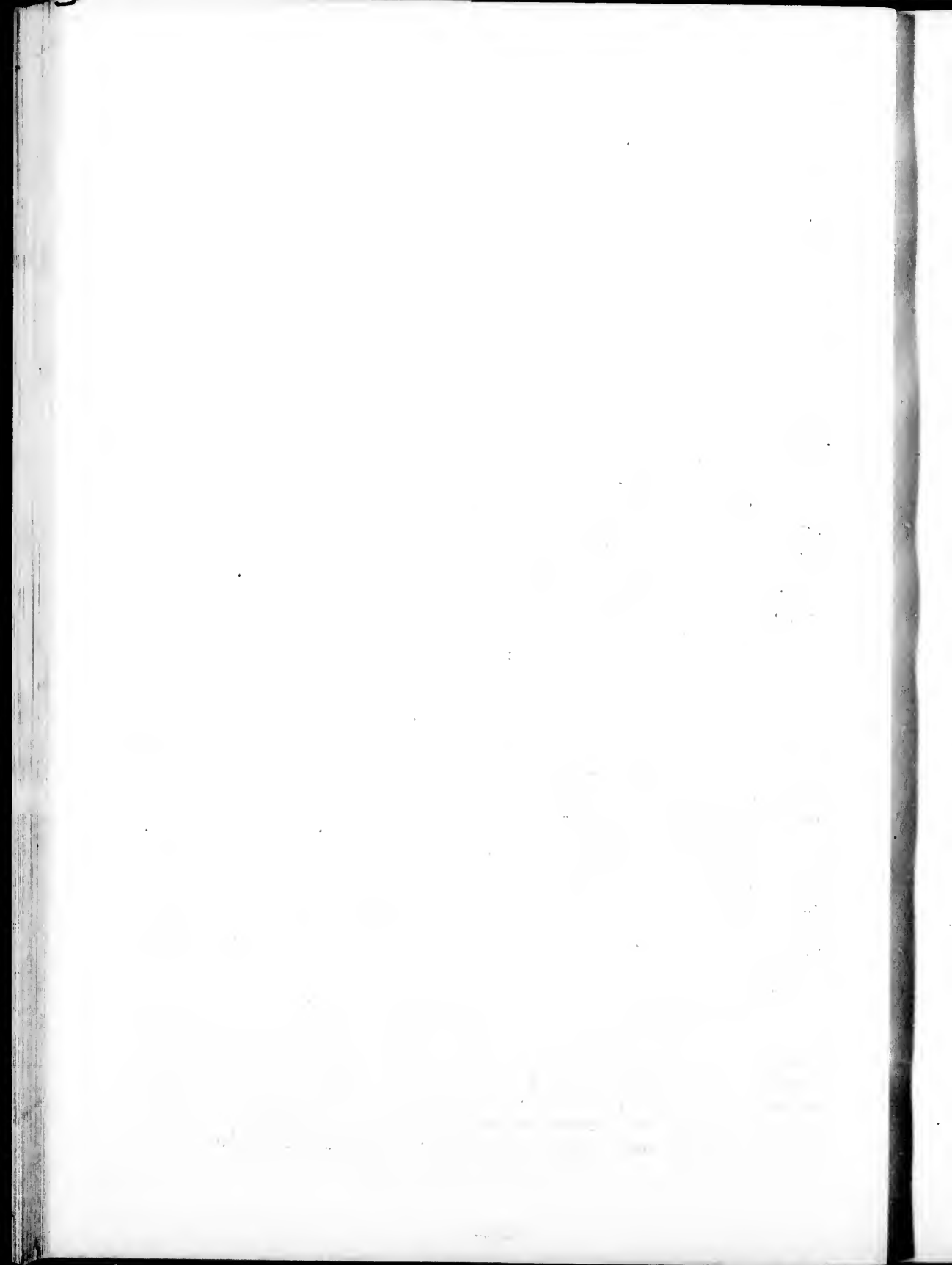
haze. The colonel had also an idea of trying to reach the Simpson Pass from the Vermilion Pass (which ran south from Castle Mountain, the old Silver City), his plan being to cut across from the summit by way of the Twin Lakes. I had no idea at that time of going anywhere near the Vermilion Pass, though subsequent events made me very familiar with it.

I followed the old Tote road, indistinct at best and in places obliterated. The broad Bow Valley, flanked with peaks, their summits white with new snow, or wrapped in fleecy clouds, opened before me like a great highway. Of the several streams which I forded, the Pipe stone only gave me any difficulty. As I was late in leaving Laggan, I was obliged to stop for the night at Eldon, a small log hut for the railway hands.

After a sleepless night upon a narrow bench, I hurried on to Castle Mountain, where Carryer was awaiting me in the Prospector's house. I expected to proceed at once to Cascade, in order to start over the Simpson Pass, but was led to change my plan through some information given by the prospector, who assured me of the existence of an Indian trail running from the lake near the summit of the Vermilion Pass down to the Simpson Pass. This was the idea suggested by Col. O'Hara, though, of course, he had known of no trail. This would be shorter for me than to go to Cascade, and would bring us to the Simpson Pass at a point quite near the stream we desired to ascend. Further, our outfit could be ferried over the Bow in a skiff owned by the prospector. Carryer thought the Vermilion Pass much preferable, therefore, and I finally decided to cross the Bow at once.

Ferried over in safety, we followed the south bank for several miles toward Laggan until we came to the Vermilion trail. Unfortunately for travellers, the railroad has cut numerous roads for handling ties from the forest, and it was difficult to follow the main trail. To add to our troubles, it soon began to pour, and rained steadily all the afternoon as we toiled through the woods in dripping mackintoshes. The pass became almost a flowing stream, and with uncertainty as to where we should spend the night, our situation was far from reassuring.

We reached an old logging camp at five o'clock, and at six came to another, where we passed a comfortable night in one of the huts. The rain had stopped by morning, but we lost nearly three hours in getting the right trail. Again at noon the trail failed, and we searched in the dense woods for two hours before finding a tentative trail which we followed for two hours to a lake. Here I waited while Carryer returned for the horse, which we had left behind, and as it was late when he arrived, we camped for the night.



The lake on which we camped was undoubtedly the one mentioned by the prospector, but a hunt for the trail of which he spoke was fruitless and I am inclined to think it had been obliterated by time. The lake was small, but the image of Castle Mountain, to the north, mirrored in its surface, made, with the foreground of green, a charming picture. To the south, a snowy dome (Mount Ball), and lower peaks appeared. We had been obliged to come without a tent, as we had but one pony, but heavy sleeping bags and rubber blankets answered every purpose.

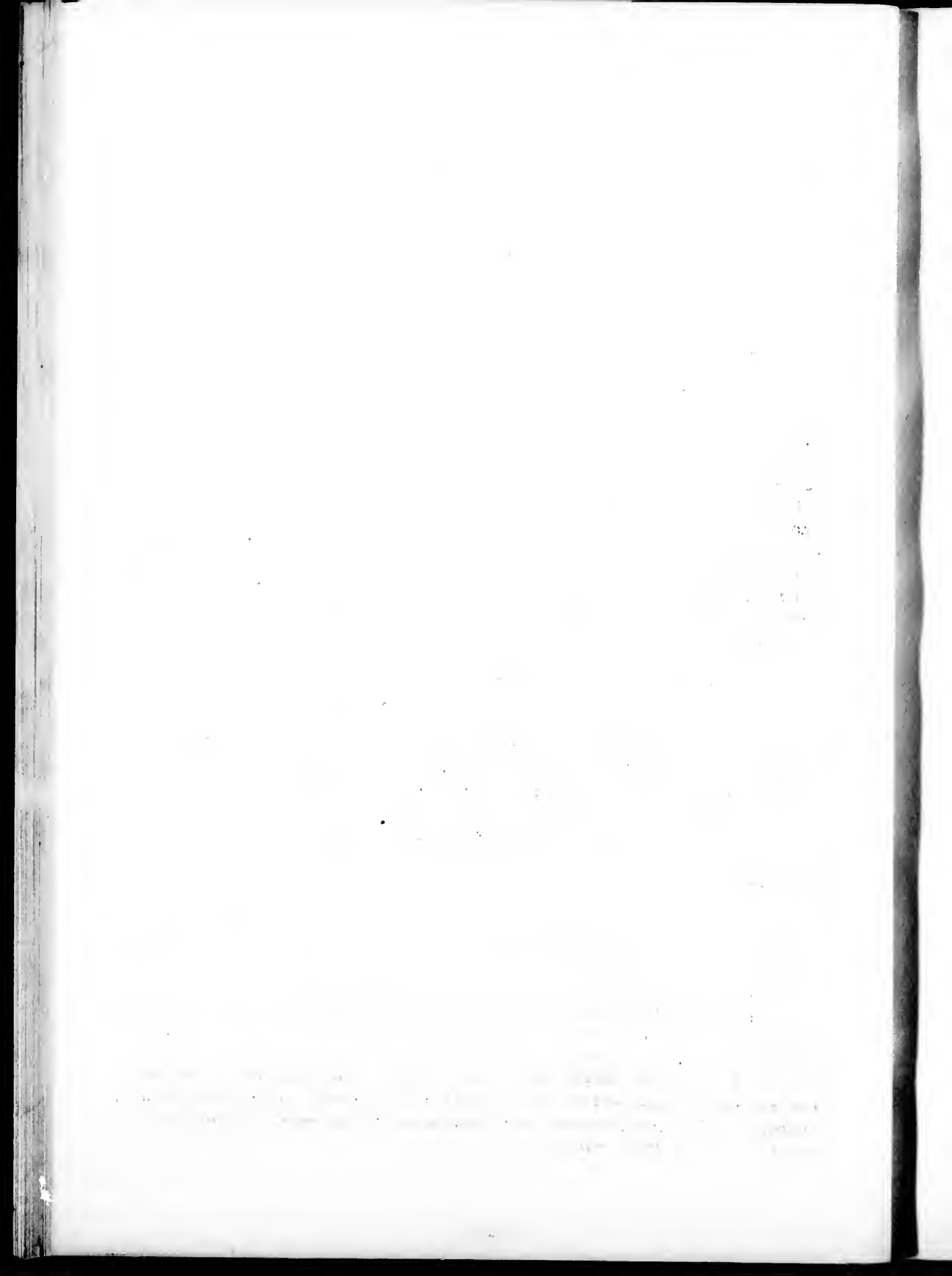
Next morning we followed the Vermilion trail over the summit across flowering meadows and thin woods, and descended the Vermilion creek on the other side, having decided to continue on to the Simpson river by way of Vermilion, a roundabout way, but unavoidable, as we had failed to discover the prospector's trail.

For the rest of the day, and every day until we reached the Simpson river, it was a succession of trail hunts and losses of time. The trail was well nigh extinguished from debris and freshets, and the forest was very thick. That night we made our camp upon a sparsely wooded island. The ground was damp and rain fell during the night.

Next morning we threaded our way along the river flats, having reached the main stream of the Vermilion, which joins the other from the northeast. This stream may be found to rise at the head of the Opabin valley---its source has not been definitely determined. It is doubtless named from the peculiar characteristic color that coats the stones and marsh grass of the river flats, resembling much the red fungus of Yellowstone Geysers, though what this coloring matter is I do not profess to know.

After making the bend to the east the Vermilion Valley lay before us, broad, and bounded by low hills to the south, with higher peaks to the north, topped by the snows of Mount Ball. During the course of a trail-hunt soon after, we saw the "falls" of the Vermilion, a beautiful cataract of some fifty feet, resembling the cataract on the Wapta Creek, back of Hector. We camped that night at Snow river, a cold spot, swept by winds from the glaciers on Mount Ball.

The following morning, Saturday, September 9th, after toiling for five hours through a pathless forest, we emerged tired, hot and generally uncomfortable upon a veritable Colonus--a circular opening in the woods, through whose long, waving grass was heard the ripple of a brook. Ferns, waist high, fringed the edges, streamers of moss waved from the boughs, while many colored painters' brush, pink and white



spireas, and the graceful columbine grew in profusion around, together with yellow buttercups, pink and white pyrolis and the ever present daisy. Blue lupins and larkspur were contrasted with curious yellow and red and white fungi, which lined the margin of the forest, and the air was sweet with the scent of wild roses.

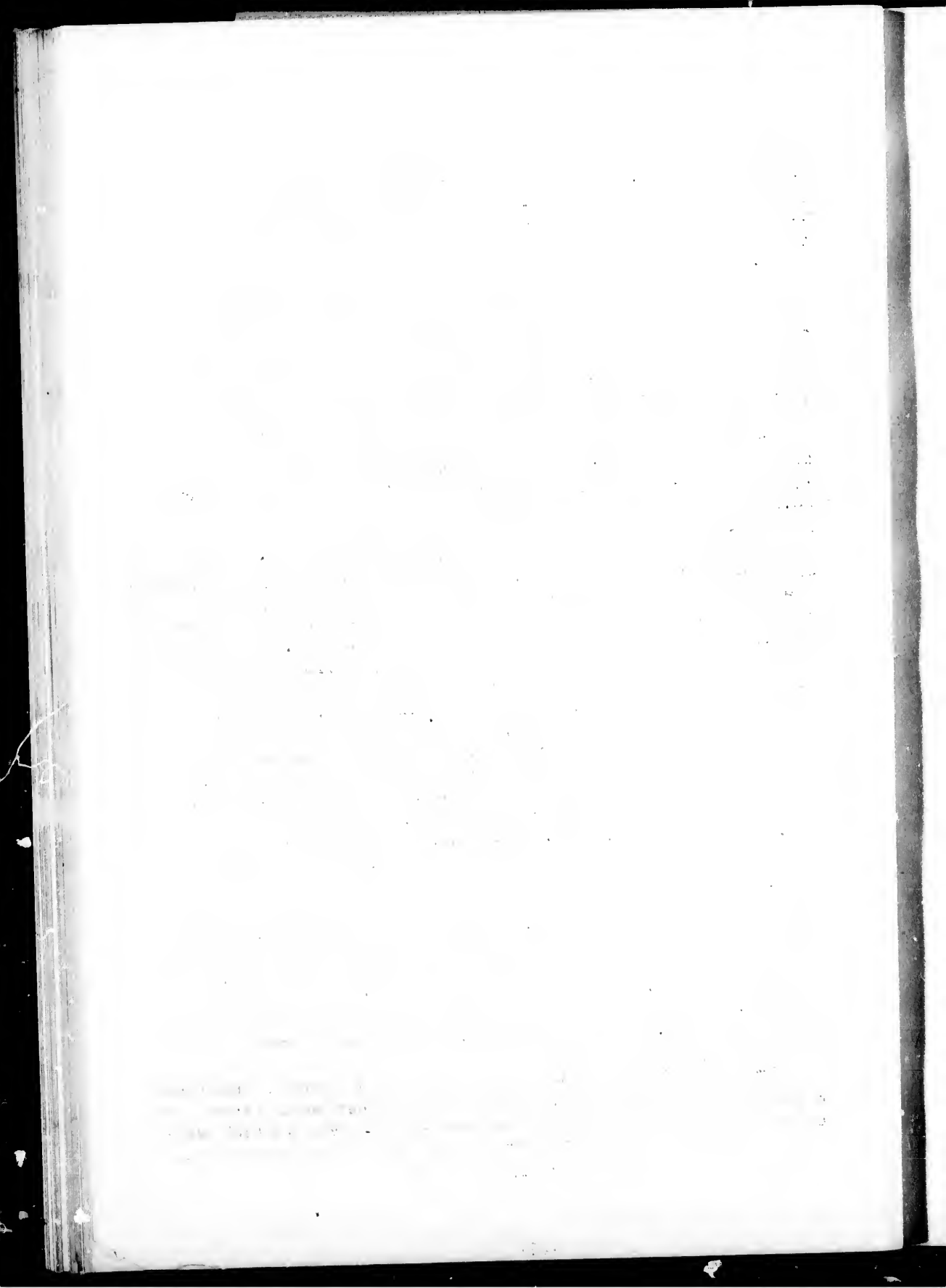
Unable to reach the Simpson river before nightfall, we camped in a swamp on the edge of a thick forest; as the sun sank lower and lower behind Mount Ball, its snowfields glowed with crimson, against the sky fading into violet and purple till they shone like silver in the light of the rising moon. A single aiguille of prodigious steepness, towered black above the other mountains upon the south side of the valley.

We reached the Simpson at noon next day, September 10th, The frequency and great size of the bear tracks on the river flats, together with tracks of cariboo, elk and bighorn, indicated an abundance of game. There ought to be good hunting in this valley, for it connected directly with the celebrated Kootenai country, so famous for its game.

Leaving the Vermilion, which here bends to the southeast, we ascended the west bank of the Simpson river by the Simpson trail, and camped at six o'clock. The following noon we had reached the stream desired, the third from the Vermilion, flowing from the east. As the only stream flowing into the Simpson from the west was represented on Professor Dawson's map as about a mile further on, we made certain of our stream by continuing until we met this stream from the west. Returning thence, we forded the Simpson and began to ascend the stream from the east, which from subsequent developments I named Walandoo Creek. After slow progress among the stones and boulders, we discovered an ancient Indian trail upon our left by which we ascended some fifteen hundred feet above the Simpson river. Here our stream made a sharp turn to the right, and as it was nearly night we camped in a grove of spruce.

In the morning the ground was rapidly whitening with snow, and we continued our ascent of the valley, unable to see any distance ahead. The exposure had caused in me an enlargement of the palate, preventing clear speaking and causing me much alarm. This was completely cured in half an hour by application of a few drops of sap squeezed from the blisters of the bark of a balsam tree, an Indian remedy suggested by Carryer.

The indian trail had long since disappeared. About one o'clock we reached a small lake and further on a larger one, over half a mile in length, surrounded by great black walls,



but the storm shut off all view. Standing in the meadow at the head of the lake we ate a cheerless lunch, and then began to ascend the steepening slopes of heather, past scattered groups of spruce and tamarack, toward the great misty walls ahead which I then believed must be a portion of Mount Assiniboine.

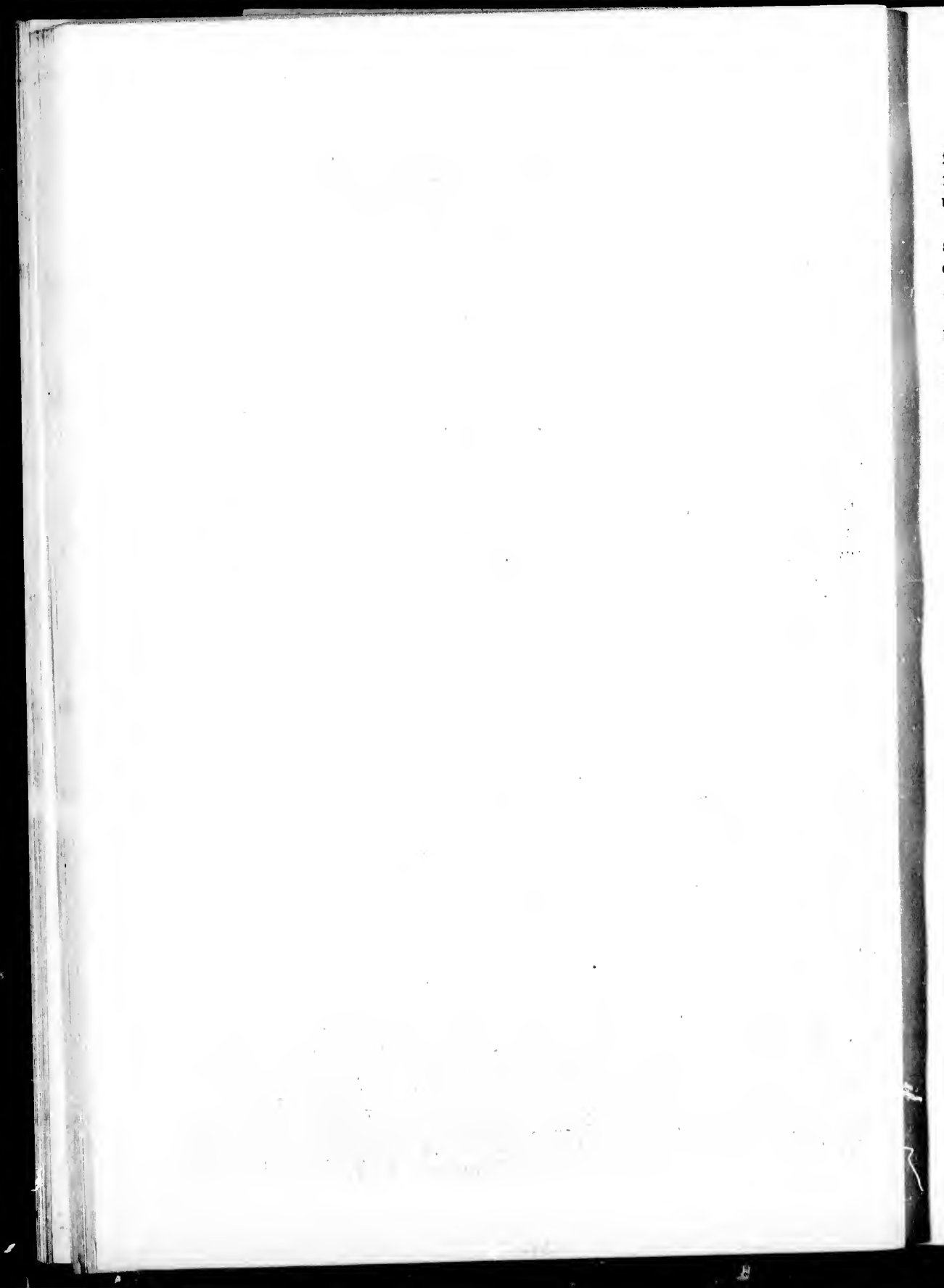
It was nearly six o'clock when we reached the last group of pines and saw before us a ridge whose summit hidden in cloud was evident by the end of the valley. Judging from Dr. Dawson's map, it should have been Mount Assiniboine, and we camped in the group of pines, believing that we were under the shadow of our long desired though as yet invisible mountain.

Making a rough shed of boughs we covered it with rubber blankets, a little runnel in a hollow to the right supplied us with water and there was good grass for the pony. Thus closed Thursday, September 13th.

The snow fell with brief intermission until the night of Saturday 15th, when for a brief hour the moon shone forth, burnishing the white landscape with its golden light. Doubtful of obtaining any other photographs, I exposed a quick plate for half an hour, pointed directly at the moon, which shone through a depression in the ridge. The result, printable though faint, shows a string of moons, owing to the moon's motion while under occasional clouds. The skyline of the ridge ahead was hardly five hundred feet above us, though on either side the walls rose from one to two thousand feet. Thus there was an evident pass into a valley beyond. Nothing was seen of Mount Assiniboine, and in the morning starting at five o'clock, we trudged through snow from one to two feet in depth up the long slope on the right to the top of the ridge. In places the snow had frozen and was as compact as old neve.

On reaching the top a valley was seen on the other side, broader than that whence we had ascended, and filled with writhing mists. These, touched with the faint colors of sun rise and tossed by the morning winds, swept by me and about me, showing snatches of superb vistas through their damp grey openings, till I felt like some aerial navigator sailing over peaks and valleys.

When I finally had an opportunity to observe the other side of the valley, the first object I saw was a beautiful lake lying a little below treeline at the base of a great glacier-crowned wall. Above this lake, encircled by glaciers at the foot of the walls, which rose three thousand feet above it, was a small lake. The top of the wall was hidden by moving clouds, and I believed it to be Mount Assiniboine at last. After taking a few photographs I returned to camp



for lunch, and in the afternoon we crossed the divide to the right of the ridge in order to visit and name the unmapped and unknown lake.

Our visit was partly for purposes of fishing. The extension of our trip had sadly diminished our larder and only two days' provisions remained. This fact, together with our unfamiliarity with the Simpson Pass to the Bow river---a distance requiring at least three days, as we estimated, caused us considerable foreboding.

Having crossed the divide and descended the burnt timber on the other side, we found the lower valley free from snow. Reaching the bed of the stream we followed it to the small creek observed from the ridge to flow from the lake. Ascending this creek we stood upon the bank of the lake at three o'clock.

This beautiful lake than which I have seen none finer in the Rockies, and which I named Assiniboine, is about a mile in length and slightly less in width. Its color was a dark green and it was fringed with grass and shrubs and slopes of pine. The great walls rising behind it with their fine blue hanging glaciers and white glaciers below made a scene never to be forgotten by one who has seen it. The upper lake which I did not have time to visit, encircled as it is with glaciers, should be a second Lake Ieesa.

Carryer's luck at fishing was nil, and he decided to fish down the creek and meet me at the junction of the stream.

I had followed the left bank of the lake to get a few more photographs, and was about to leave when, happening to glance up at the rapidly moving cloud that hid the top of the wall, I observed through a sudden opening a single needle-like point glittering against the blue sky behind like a bit of black obsidian beneath a silver veil. It was indeed Mount Assiniboine, for, though the apparition lasted but a second, I obtained other sectional views of the gigantic pyramids. The walls above the lake seemed but a support for the base on which it rests, and the summit must be at least two, and possibly three thousand feet above the summit of the wall. The altitude of the lake was 6600 feet and calling the wall 3000 feet and the pyramid from 2000 to 3000 feet more, the altitude of the summit becomes about 12000 feet above the sea. Dr. Dawson estimates the height at about 11500 feet, which is, I think, too low. Perhaps 11,900 feet would be a cautious estimate, which would make the peak 242 feet higher than Mount Lefroy and 200 feet higher than Mount Temple. The north east and northwest acetes seemed from these sides inaccessible, and attempted ascents should be made from the

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southeast or southwest side. Carryer, when I joined him, had also seen the peak, and was much impressed by what he considered the most awful mountain he had ever seen.

On our return we killed a large porcupine and some ptarmigan, which solved the vexed question of provisions, and at seven o'clock we closed an eventful day with a delicious ptarmigan stew.

How to cook the porcupine was a subject of debate. The following method gave entire satisfaction. All night he was roasted on stakes, afterwards he was parboiled and then stewed.

The valley in which we were camped with its creek and lake and ridge, I named Walandoo, or deception. The river and valley beyond the ridge I named Assiniboine, like the lake.

It was now necessary to hasten back to civilization. Accordingly, we broke camp next morning and on reaching Lake Walandoo I photographed it, and likewise the amphitheatre to the north. Most of my plates on this expedition were scratched or light struck, as I had had only my sleeping bag to change them in.

We descended on the left side of the stream until we had rounded the corner, then joining the old Indian trail on the right side, and reaching Simpson river at five o'clock. By 6.30 we were camped by the banks of the clear stream flowing from the west. A chinook wind swept up the valley and the air was warm and springlike.

Next morning we followed the Simpson river until the trail seemed turned off to cross the divide. We were wet to the skin nearly all day with continual fording of the stream, occasional showers and soaking underbrush. As we neared the summit of the pass we obtained a beautiful retrospect over the Simpson valley. Upon the summit, which is, of course, the watershed, we encountered a heavy snow storm, and a night on the open seemed imminent, but we forced the Heely Creek trail on the other side, and descending by it we camped in the woods by a little stream at 6.30.

Making rapid time next morning, favored by an ideal day, we were soon descending the beautiful valley of Heely Creek. A superb peak to the west was in sight nearly all the morning. The mountains reminded me of the limestone peaks of Salzkammergut, their summits white and lower slopes of varying shades of green. Many of the peaks were very sharp, and indeed dolomite entered largely into their composition. They average from eight to ten thousand feet above the sea, and should offer an attractive field to climbers.

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At four o'clock we reached the broad valley of the Bow. Fording without difficulty on horseback, we spent a comfortable night in the clean section house at Cascade siding, about a mile up the track toward Laggan. I must mention the beauty of the ford of Simpson Pass, where we crossed the Bow. The river formed a foreground for the graceful range of distant peaks to the south, whence we had come. This ford and the pass to which it leads should be used by future visitors to Mount Assiniboine. Our circuit by the Vermilion had taken thirteen days from Castle Mountain round to Cascade, and we had travelled nearly one hundred and fifty miles.

I flagged the train next morning and was soon at Laggan, where I was joined in two days by Carryer, who rode the horse up the Tote road, arranging, however, not to stop at Eldon. Further explorations being impossible, owing to continued snows, I left shortly for the east.

