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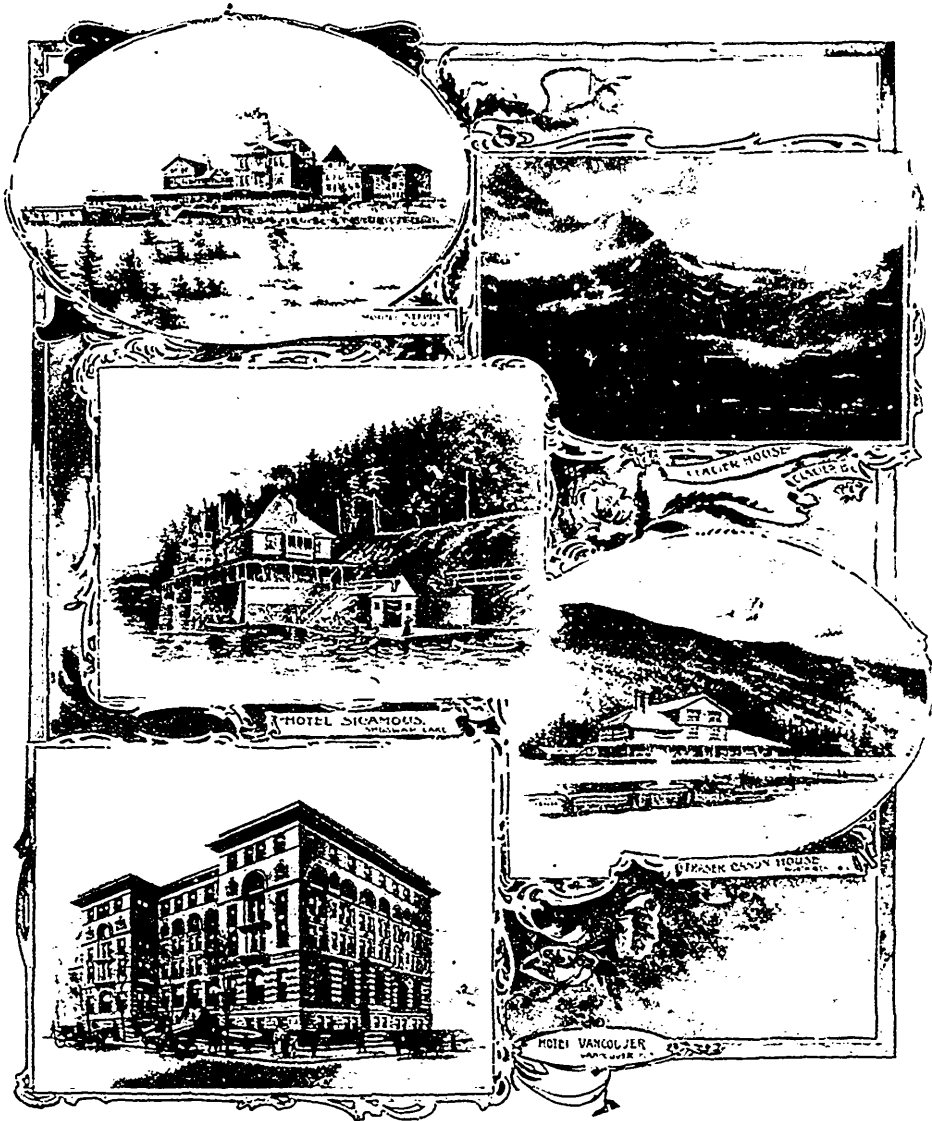
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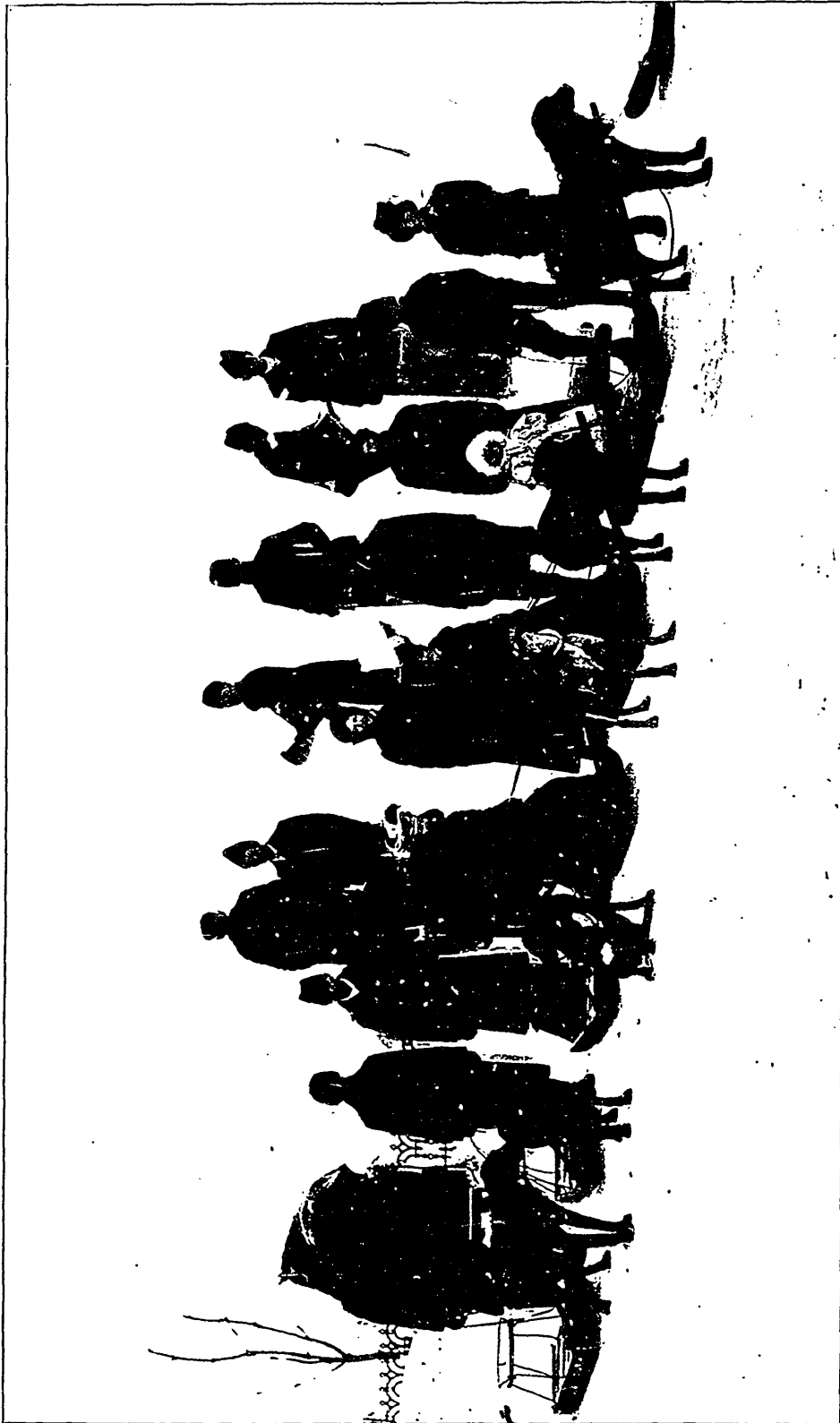
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ROD AND GUN IN CANADA

VOL. V.

MONTREAL AND TORONTO, JANUARY, 1904

No. 8

Over the Height of Land.

BY A. C. FALES.

The "Height of Land", so called, has reference to the watershed, which separates the streams flowing into Hudson's Bay on the north, from those which empty their waters into the St. Lawrence on the south. The mountain range here is known in the geography as the Watchish and is a continuation westward of the Laurentian Hills north of the St. Lawrence.

Being desirous of visiting the headwaters of the Ottawa River during the month of September on a hunting and fishing excursion, my friend, Mr. H. I. Jenkins of Malden, Mass., and myself, applied to the Province of Quebec for a special permit to hunt and fish over the "Height of Land," it being illegal to hunt in Pontiac and Ottawa counties, south of the "Height of Land," until after October first. This permit being granted, we left Boston on the evening of September first and found ourselves in Montreal the next morning, and without delay proceeded to Ottawa, where we arrived at about one o'clock. We visited the Senate and House of Commons, then in session, and afterwards proceeded to Mattawa, on the Canadian Pacific Railway, where we met our guides, Messrs. George Crawford and Angus Bastein, at the store of the Hudson Bay Co. Everything that a sportsman needs in the woods can be obtained here, and we purchased all our provisions and rented our camping outfit, including tents, blankets and cooking utensils, also three birch-bark canoes. Not being able to catch the train to Timiskaming that day, we were compelled to stop a couple of days

at Mattawa, but we passed the time very enjoyably fishing in the neighborhood. There seems to be no trouble to catch all the fish one cares about right at this place. We caught bass weighing over three pounds, pike over twelve pounds and mas-calonge over twenty-three pounds. On Saturday, the fifth, we left Mattawa for Timiskaming, which is on the south end of the lake of the same name, and taking steamer there, went up the lake, stopping at Ville Marie, Haileybury, New Liskeard and finally reaching North Timiskaming the afternoon of the sixth. Here we stopped over night and engaged a double team to carry our luggage over the portage, which cuts off the rapids of the Quinze River. It is here that we leave civilization and enter the almost uninhabited regions beyond. I have said nothing of the trip on the railway up the Ottawa River and the scenic beauties of this noble stream, nor of Lake Timiskaming, of which so much has been already written by those who have gone before, but shall speak more particularly of our trip beyond North Timiskaming, of which not so much is known to the sporting fraternity, though it is easy to predict that it will be a favorite resort for many in the future.

Leaving North Timiskaming on the morning of the seventh we followed the team over a fairly good road through the forest for about thirteen miles to Klock's farm on Quinze Lake. While travelling over this road we met William Paulson, who was on his way to North Timiskaming, having just come down the Lakes. We immediately hir-

ed him for the trip and he proved to be a very valuable man to us, as he was familiar with all the northern country through which we were to travel.

On reaching Quinze Lake we had dinner and then launching our canoes we commenced the long paddle northward. We could very well have proceeded up the Quinze River, by carrying around the various rapids as we encountered them, and taking in the scenery there, but our delays prompted us to adopt the quicker route. On the evening of the seventh we camped at the north end of this lake and started early in the morning up the river to Barriere Lake. This river is, I believe, sometimes called the Lonely River, but it must not be confounded with the Lonely River that we ascend later on in our journey. At the foot of Barriere Lake, we again encounter rapids, and a short carry is necessary to get into its waters. From here we paddled northward all day, stopping on an island for dinner. This lake is very long and narrow, with dense forest down to the water's edge. Wild fowl, including various species of duck, were fairly plentiful, though shy, owing to the route being frequently travelled by the Hudson Bay Co.'s men and by those engaged in lumbering and surveying.

In the afternoon we entered the Lonely River, which is almost a still-water stream about eight miles in length, connecting Barriere with Opisatica Lake. We saw many duck on this stream and numerous fresh signs of moose. Reaching the foot of Opisatica about an hour before sundown, we camped for the night and caught several pike. There is very good fishing from here onward.

Next morning we journeyed onwards until we came to the Narrows, where William Paulson lives with his family during the trapping season. Continuing through the Narrows the Lake expands again and we find two large bays extending to the west and east. On the journey up this lake we saw our first moose. He was busy eating lily pads when we first saw him, but as the wind was blowing towards him, he soon got our scent and made off into the forest.

Soon after we reached the north end of the lake and crossed a short passage into "Height of Land" Lake. Paddling down this we came to a somewhat longer portage, parts of which were planked, it being one of the routes of the Hudson Bay Co. Crossing this portage we came into another small lake, which empties its waters northerly by the Snake River into Island Lake.

We are now over the "Height of Land" and are on waters which eventually reach Hudson's Bay. Down Snake River we go and soon find ourselves in Island Lake, where we were to have two weeks of genuine sport. It being late in the afternoon, we did not go far on Island Lake that day, but pitched our tents on an island, where we remained a couple of days to explore that part, and ascertain where the moose were located.

All along the route travelled by canoe there are dense forests of poplar, birch, fir, spruce and tamarack, but the latter were all dead.* I think it would be very difficult to find a living tree of this species. What is the cause of the death of all the tamarack I was unable to determine, unless from the depredations of some species of caterpillar. We certainly enjoyed immensely the long canoe trip, with a south wind sweeping us along all the way. I would be glad to take the trip again, if for nothing else than to view these magnificent lakes. The air here, unpolluted by smoke, is enough to bring health and vigor to any, and I thought if one could transfer these waters to the vicinity of some of our American cities, what a resort they could be for holiday excursions of our over-crowded people.

In passing up these lakes, you find that lumbering is carried on to a considerable extent, though I failed to see any timber that I considered worth cutting, unless for pulpwood, and inquiring to find if the territory had been lumbered over in former years, I was informed that such was not the case, that the large timber is found principally on the high ridges, somewhat distant from the lakes. Here they get fairly good pine, but in general from the lakes the forest trees appear small and I

*See Editorial Comment following this Article.

understand that one hundred years or more ago, according to Indian tradition, this immense country was swept by destructive fires. Hunting in the bush here is difficult work owing to the denseness of the undergrowth, so we always confined ourselves to the small creeks that make into the lakes.

To return to our story: We found on exploring the various bays, outlets and inlets of Island Lake that our geographers are much astray. There seems to be no end of islands, which hide the shore line but as we had lots of time, we determined to make use of it, and discovered that on the east side, there is a short channel leading into another large expanse of water, of very irregular shape, almost, it seemed to me, as large as the main body, and this is not shown on the map.

On Friday, the eleventh, we determined to reach the northern end of the lake and find the stream that leads into it from Labyrinth Lake, through which latter runs the boundary line between Quebec and Ontario. But though we went several miles up a small creek, which seemed the right one, we had to abandon following it farther owing to the fallen trees which obstructed our passage. Here we found plenty of fresh moose sign. We camped in a veritable jungle for the night, and retraced our way next morning to the lake, where after another hour's hunt, we found the right stream, the outlet of Labyrinth Lake. At its mouth we made our headquarters for the rest of our stay. Here away from the route of the fur traders we enjoyed complete seclusion from the rest of mankind, and had things all to ourselves.

Though we had rainy weather most of the time, and very windy, yet a few evenings and mornings were calm enough to call moose. George Crawford acted as my guide, and William Paulson for my friend, Mr. Jenkins, while Angus Bastein acted as cook. Every day when it did not rain too hard we paddled across bays and up creeks, in search of fresh signs of game and found that they were here somewhere. Monday, the fourteenth, we thought we had them located and started off, George and I up the creek where the logs were, and William and Mr. Jenkins farther west to another creek. We were not there long, and had called only a few times, when it

was evident that our chopping the day before had scared the moose out, and soon we heard shots in the direction of the other party. Returning to camp for breakfast, we had not long to wait before Mr. Jenkins and William returned with smiling countenances, and after hearing their story, we breakfasted and went with them to skin the moose. We found him near the water, and he proved to be the largest that I have ever seen on any of my trips. His antlers had a spread of fifty-one inches, which though often surpassed, were nevertheless very symmetrical and we were well pleased with them. After cutting him up we returned to camp, and as they said they had heard two or three more there, it was resolved that we try there again next morning. This time George and I went, and after some time meeting with no response to the call, concluded the other moose had been frightened away, and accordingly we paddled for headquarters. But we were to have our share of sport before we reached camp, for on approaching a point of land that makes out into the lake, George espied a black object on the shore, and after watching it a while, to ascertain if it moved, he called my attention to it, and there was Bruin sure enough.

The wind was blowing at this time, but fortunately from the bear toward us. Approaching him carefully we came within about one hundred and fifty yards, then stopped to see what he or rather as it turned out, she would do. The bear was evidently undecided herself, for after walking backward and forward a few times, on the shore, she started toward the bush, when George instructed me to fire, which I was about to do, when she retraced her steps to the water's edge. Being requested to reserve my shot, we watched her awhile longer, edging nearer meanwhile for a closer shot. Why she did not see us I cannot understand, but she was evidently thinking of something else, and after looking all round, she plunged into the lake and started to swim across and strange to say, in a direction almost directly toward us. When within about fifty yards of the shore, she raised herself in the water and looked straight at us with a very much surprised air, then turning made haste for the point.

Dropping the rifle and grasping a paddle, we were soon close on, when I suggested that we get between the bear and shore, but my guide thought it better since we were then so close to land to take no chances and advised me to shoot, which I accordingly did, killing her instantly by a shot through the neck. Then grasping her by the ear we towed her ashore. She proved to be an old bear, with the incisor teeth broken off, which my guide said was probably due to her having been caught in a trap somewhere, and sure enough when skinned, we found a large horizontal scar on her back, where she had been crushed in a death fall. We began to think by this time that Quebec was not a bad place for big game after all. Later on we secured another pair of fine antlers, which, though not having so wide a spread, were much more massive and had twenty points in all.

Small game was very abundant, including two varieties of grouse, also rabbit and muskrat. We used a .22-calibre for these, as a shotgun would have made too much noise and disturbed the larger game. In the vicinity of the camp we found old beaver dams, otter slides and muskrat houses. The animals were very plentiful, and paddling down the rivers after dark, we would be almost scared overboard by the noise caused by their sudden plunges in the water. My guide would smile at me and grunt: "O jusk!"

Their knowledge of the habits of all kinds of game furnished us always with an interesting subject of conversation, as we sat smoking our pipes around the evening camp fire.

Our time was now limited and we began moving south by easy stages, in order to reach Klock's by Friday night, twenty-fifth and get our baggage on their teams Saturday morning bound for North Timiskaming. On our way out we met a number of other parties going in. These came from various parts of the United States, New York, Philadelphia, Chicago, Annapolis, Maryland, and from Ohio. The last day of our canoe trip we had the wind against us, and the lake became so rough that we shipped water badly and it looked dubious for a while, whether or not we could make our connections in time. Fortunately an "alligator" came along and taking us

aboard, helped us over a very considerable part of the balance of our journey. These "alligators" are so constructed that they can navigate over land or water and if required can be turned into a portable steam saw mill. They are a very convenient craft for this northern country.

The voyage from North Timiskaming to Mattawa was uneventful. We reached there on the evening of the twenty-ninth, and after a hurried change of clothing, we bade our guides and the Hudson Bay people goodbye, and boarded the train for home, reaching Boston Wednesday, the thirtieth, after an absence of thirty days.

As I think over the trip now at my leisure, I feel that up to date it is the best that I have ever made and the most successful. Our guides were all that mortal could wish. They were most painstaking to provide for our comfort, and the best hunters I have ever yet accompanied, and I cheerfully recommend them to others who may desire their services.

*(The destruction to the larch or tamarack throughout the forests of Canada, by insect depredation, has been severe and widespread. The appearance of the destructive agent, the Larch Saw Fly (*Nematodes Ericksonii*) was sudden, and its spread very rapid, but it has now almost disappeared, leaving however the tamarack trees bare and dead, until the new growth, which is now coming up, takes their place. The Larch Saw Fly was first noticed in the United States in 1881, and in 1882, and 1883, its first appearance in Canada was recorded in the Eastern Townships of Quebec: In 1885 the tamaracks were dead or dying all along the line of the Intercolonial Railway, and the work of destruction had advanced into Ontario and quickly spread through the northern forests. Whether the insect is introduced or indigenous is uncertain. Dr. Packard stated that the American Saw Fly differed slightly from the German, in the eggs being laid at the base of the leaves of the newly grown shoots, rather than on or under the epidermis of the last year's shoots, where they were repeatedly and in vain searched for, and he considered that it could not have been introduced with the European Larch, as its ravages

were committed in the wilder and least frequented parts of Maine, New Hampshire and New York. Dr. Fletcher noticed that the eggs of the German insect were laid in double rows, and those of the Canadian in single rows, but was of opinion that the species must have been introduced on account of its rapid increase and spread, and freedom from parasites, and the fact, frequently observed, that the European Larch was attacked in preference to the Canadian. The practical disappearance of the pest is probably due to parasites, as this is Nature's usual method of keeping the balance of forces.

The Larch Saw Fly belongs to the Order Hymenoptera, and is a small insect about half an inch long, its color being black and orange. The wings are four in number, black-veined with a tawny fore margin and dark black spot—the stigma—towards the tip of the wing, and in the female have a spread of three-fourths of an inch. The head, thorax, and base and tip of the abdomen are black, and segments two to five of the last and part or all of six are a rich waxy orange color. The first and second pair of legs are yellow and the third pair longer than the others. The ovipositor, or female organ for depositing the

eggs, is fitted out with a saw apparatus for making the necessary slit in the larch needles to prepare a receptacle for the egg, hence the name sawfly. The eggs are laid in the terminal young shoots, and sometimes in one of the lateral shoots as well, and give them the peculiar distorted appearance which is a sign of the work of this insect. The larvae, when hatched, are dark green, with the head large and dark, and they begin immediately to eat the leaves with a voracious appetite, beginning at the apex of the twigs and working down. When disturbed they curl up into the peculiar "S" shape so characteristic of the saw fly. They are active for about one to three weeks and after the last moult the color is bluish, the head and thoracic feet black and the lower part green, while the length is about 1½ inches. They then change to brown or pink, drop from the trees and prepare for winter, by spinning brown cocoons under the leaves, or debris, or sometimes down a short distance in the earth. The mature fly appears about the end of June or beginning of July, according to the locality and the cycle goes on again. The damage is done in the larval stage by the destructor of the tamarck needles, the trees being bared and killed out.—Ed.)

In the course of an article on "Things a boy should have a chance to read," in the "American Review of Reviews" for December, Mr. H. L. Elmendorf deals with the so-called Nature books, and as we agree most cordially with what he has said, a few excerpts may not be amiss:—"For instance, he must know the value of the ethical animal stories, in which animals talk and reason in a human way, beginning with 'Aesop's Fables,' which the boy may have as a very little boy in 'Baby's Own Aesop,' pictured by Walter Crane, or later in Joseph Jacob's 'Fables of Aesop,' through 'The Delectable History of Reynard, the Fox,' down to their natural successors, Kipling's 'Jungle Books.' These teach ethics, — the power of kindness, the necessity and nobility of obedience, the strength of the weak, and the quality of mercy. Then there are ani-

mal stories such as Lloyd Morgan's 'Animal Sketches,' Ernest Ingersoll's 'Wild Life of Orchard and Field,' W. C. Hornaday's 'Two Years in the Jungle,' and Paul Du Chaillu's 'World of the Great Forest,' which teach natural history,—healthy books of which boys, as a rule, are very fond. Between these two classes there is a mass of pernicious stuff, generally published under the name of 'nature books,' but most unnatural, where 'peach trees ruminant on the distribution of their pits, and the caterpillar reasons as to his future metamorphoses,'—false science and poor stories. Those who love nature and outdoors should be told of the best bird books, such as Chapman's 'Bird Life' and Dugmore's 'Nature and the Camera,' of Mrs. Dana's 'How to Know the Wild Flowers,' of the fern books, the mushroom books, and the like."

Sir James Hector.*

BY MARY S. S. SCHAFFER.

In August of 1903 the climbers, explorers and visitors generally among the Canadian Rockies, heard with delight and interest that Sir James Hector had arrived on the western coast and was wending his way east to retrace some of the old ground which he had visited forty-three years previously. He had come from Wellington, N. Z., where he had made his home all these years, holding the position of director of the Royal Museum of New Zealand. Needless to say that among many there was the keenest anticipation of his coming, and a pardonable curiosity to see a man whose life-record was such as his. The eagerness to behold the hero was tempered by some of younger generations, who asked the question: "What did he do?" It is for the questioners chiefly that this slight sketch is given, with the accompanying photographs. It seems strange that a man who struck such a superb blow for the liberation of the west from its vast solitude, silence and impassibility, should be so little known today among general travellers. Many of those who have given their best of brain and strength that two threads of steel might traverse in unbroken line from Atlantic to Pacific are gone. But the man who drove the first wedge lives, and to climbers, explorers and students in the vast new countries, his name carries a deep and abiding reverence. Little did we think when the snowy-haired traveller descended from the train at Glacier, that hopes were to go unrealized, and that he would return alone with his sorrow to his home, leaving a young, bright son, to rest forever in the valley of the Columbia.

Our first evening with him was one of intense interest listening to little sketches of that expedition which began in 1857, ended in 1860, and whose hardships started on landing at Fort William, extending directly west and finally reaching what is now Golden via the Columbia. The extreme limit of the expedition was conduct-

ed by Dr. Hector himself in his search for a pass. Reaching Golden, he started back by way of the famous river, since called the Kicking Horse. Reaching a point not far from the present little village of Field an incident occurred which is best told in his own words. Bringing his hand down emphatically upon his knee he said: "There is one place I mean to see, and that's my grave!" "Your grave?" "Yes, I'm sure I can go to the exact spot. We had followed a deep and swollen river from its junction with the Columbia through a very narrow and precipitous pass and eventually came to an end. Just before reaching the end, it was necessary to get our entire outfit across. I undertook to drive the first horse in, always a difficult and tedious proceeding and he resented my efforts and showed his dislike of fording an unknown angry torrent by a most emphatic kick, which struck me on the left side, breaking several ribs. I dropped of course, and after working over me for some time, my men concluded the end had come, and proceeded to dig my grave. But what's a good many years ago and I did not use that grave. Instead, they named the river the Kicking Horse, and gave the Pass, which we made our way through a few days later, the same name." Another little incident which the explorer mentioned, may be of interest to others as it was to his listeners. Half-breeds were employed to a very large extent as packers throughout the entire three years, though in the farther western work friendly Indians occasionally assisted. But one of the most faithful, reliable men of the entire trip was one Louis Riehl. Louis Riehl, who headed later the rebellion that has since taken his name. To return now to the incidents as they occurred at Glacier. The son Douglas grew rapidly worse and it was decided to remove him to the Revelstoke Hospital. There he died after thirty-six hours' illness. Sorrow makes the world akin. On

the 17th of August those who gathered about that open grave were friends of the one who was gone, and to the one who was left. Where the Selkirk Mountains will forever cast their purple shadows across his grave, where the winding Columbia will murmur a dirge as long as the river flows, we left him. Strange that the father leaves a son in the land, where so many years ago he brought his best manhood. Returning to the Revelstoke hotel, we asked for a portrait, that those who had so eagerly awaited the coming of the Grand Old Man (a borrowed but a fitting title), might form some idea of the one who had been such a power in the Palliser Expedition.

Edward Whymper, the well-known mountaineer, was by his side that sorrowful day. The first handclasp of the two well-known men was one worth seeing. They had known each other for years and never met. But when they greeted, Sir James' eager exclamation "Ah Whymper, is it you?" spoke volumes. The expression of the two faces is typical of each. The one overcame difficulties by bending with gentle insistence to the force—the other overcame obstacles by absolute mastery, as the grim powerful jaw and straight rigid lines would indicate.

Here came together on that August afternoon, Edward Whymper, master of the Matterhorn, and a long list of other famous mountaineers, and Sir James Hector, botanist, geologist and surveyor of the Palliser Expedition.

And now a word of this expedition. It seems almost sacrilege to infer that there are those who know not of its import. There are many living on the very threshold of the land explored who do not comprehend the value of their beautiful country. One portion outvies the great wheat fields of the United States, at which hitherto all the world has marveled; and another ranks or eclipses the Alps.

And it is the man Hector to whom Canadians owe so much.—that he endured hardships of extreme cold, starvation and the risk of life among the Indians, pluckily inspiring his men, and by his own magnetism leading them on to the victory which discovered the Passes so much sought. The wild tribes among the foothills were one

of the most serious problems, and his capacity of making friends with them, through his knowledge of drugs is best told in his own words: "I was very fortunate in having an epidemic break out among the Indians, which I was able to master with very simple drugs, and by frequently changing their camps. But it was that epidemic that made some very doubtful neighbors our friends, and enabled us to continue our exploration, where doubtless we would have failed had I been unable to cope with the trouble." Palliser in his own report refers in the following manner to Sir James' skill, to which he himself referred so lightly: "Dr. Hector, whose able assistance and exertions mainly contributed to the success of the expedition, was most indefatigable, not only during the general exploring season, but also during the several winter excursions, exposed to all the hardships of an Arctic temperature. A great cause of our success was due to Dr. Hector's skill at his profession among the Indians, especially the women and children." Again quoting from Palliser: "The object of the expedition was: 1st. Information for a favorable route for immigration or agricultural advantages. 2nd. To ascertain the nature of the country west of the Red River, and elbow of the Saskatchewan and north of the boundary line. 3rd. To find a pass or passes across the Rocky Mountains, north of the boundary line."

In closing this particular preface to the general report, he says: "The knowledge of the country on the whole would never lead me to advocate a line of communication from Canada across the continent to the Pacific, exclusively through British territory. The time has now forever gone by for effecting such an object and the unfortunate choice of an astronomical boundary line has completely isolated the Canadian-American possessions of Great Britain from Canada in the east, and also almost debarred them from any eligible access from the Pacific coast on the west." If Sir James Hector shared Palliser's doubt at that time what must have been his thoughts on seeing the beautiful harbor of Vancouver, with her Majestic Empress boats and her trains lying hardby to carry the stranger direct across the continent,

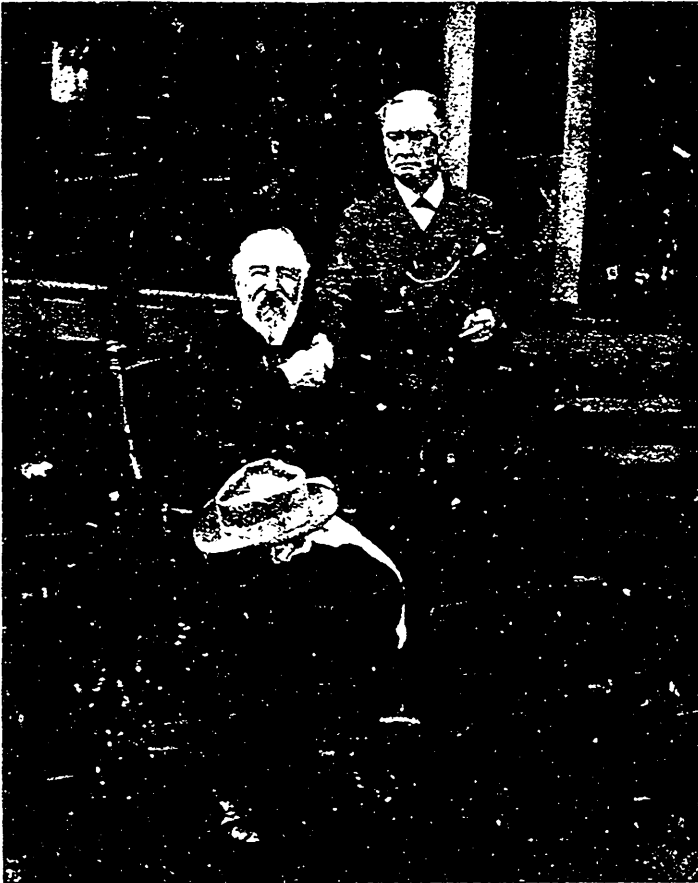
with no need for the rivers and lakes which dip below the boundary line. He did not say. But above all what would have been his feelings, had he been taken over the Kicking Horse Pass—his Pass—and seen the marvelous engineering, with which true Canadian grit has overcome such enormous

obstacles, obstacles which caused Palliser to speak so positively of absolute failure. Let us trust that Sir James Hector will come again to see the work which is finished, a work that received its first impetus from a brave, intrepid self-sacrificing explorer. And when he comes a royal welcome his. Such men as he are few.

Messrs H. W. Moller and R. J. Rioux, lately made a very interesting canoe trip and one that we think would give the greatest possible satisfaction to eleven men out of every dozen. Those who have been in the Saskatchewan country know what a fascination it has for lovers of the smooth bore or rifle. Of this journey a correspondent writes:—

“The trip affords magnificent fishing, shooting, and scenery, and is a perfect one for a holiday outing. Messrs Moller and Rioux were away twelve days. They went to Innisfail by train and drove thence to the Clearwater. The route from Innisfail to the Clearwater is but little used, and it requires someone acquainted with the country to make the journey. Three miles west of Innisfail the Red Deer river has to be crossed. The cable ferry operated there by the government was not working, necessitating the swimming of the horses. A splendid ranching country, without much timber, and having plenty of hay sloughs, is traversed to the Medicine river, ten miles beyond the Red Deer. Four miles after passing the Medicine River, settlement ceases, the only habitation to be seen being that of Thompson, a trader, on the Clearwater. The weather was unfavorable and the travellers, after spending a night in camp on the banks of the Clearwater, started down stream in a drizzling rain. The river is swift and the water clear. The country through which it runs is very flat, the banks not being more than two or three feet high. At low water the river is full of sand bars and channels, and spreads itself over a distance of about a quarter of a mile in width. During the high water of last year it spread out to a width of two miles, and the driftwood it

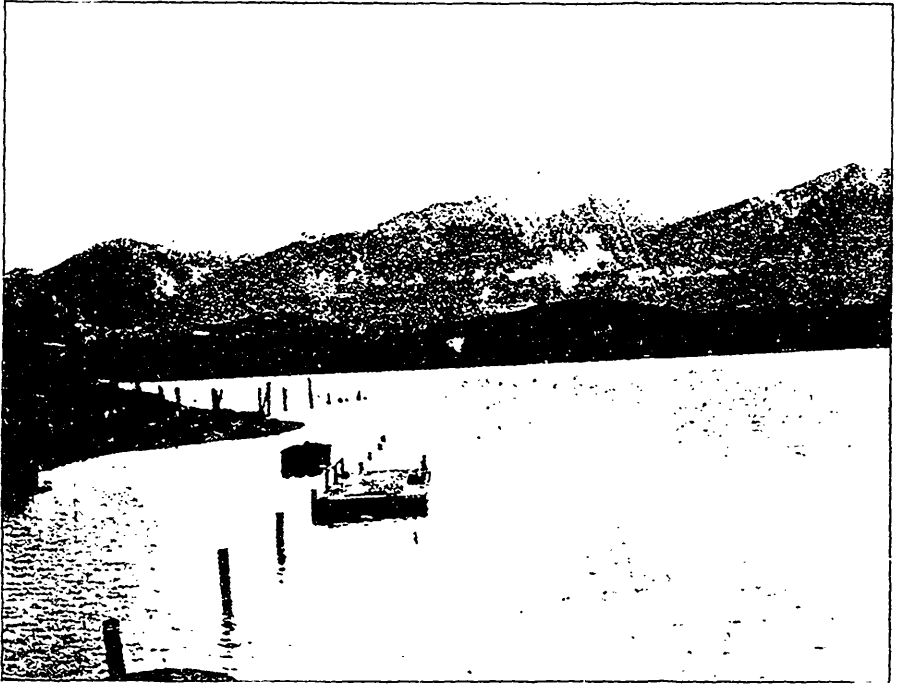
left on what is now dry prairie can be seen a mile from either shore. At Prairie Creek, a confluent of the Clearwater, about thirty miles below Thompson's post, is the great trout fishing spot. Here the travellers spent a short time, but the fish were not biting much that day, and after securing a few they continued the journey. The next afternoon brought them to the junction of the Saskatchewan and Clearwater. The view here is magnificent. The Saskatchewan broadens out to a great width, and comes rolling down in great waves where the waters meet. Just across the river are the remains of the old Rocky Mountain House, an old post of the H. B. Co. In crossing over to view the remains the travellers swamped their canoe and lost much of their food supplies. The next day the down-river journey to Edmonton commenced. This part of the trip occupied eight days. The day after leaving the Clearwater, a magnificent elk was shot along the river bank. With a number of others he had come down to cross the river, when Mr. Moller brought him down with a long shot. They estimate that the animal weighed 1100 or 1200 pounds. The horns and some of the meat they brought down. On their journey down the Saskatchewan it had been their intention to go up the Brazeau after jumping deer, antelope and moose, which are reported plentiful in that region, but they passed the mouth of the river unknowingly, and so missed that part of the trip. In places the river is dangerous to one not knowing the channels, and at all times the scenery is magnificent. As a holiday outing it is unequalled. Game and fish are plentiful, and the journey being down stream all the way makes it an easy one to make.”



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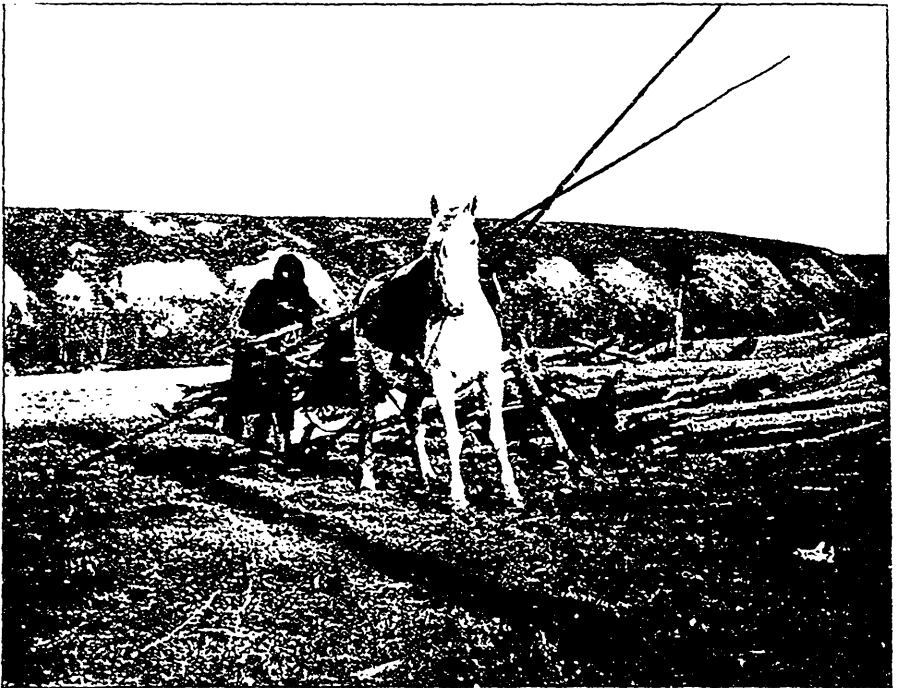
TWO VETERAN EXPLORERS.

Sir James Hector and Edward Whymper, taken by Mrs. Mary Schaffer at Glacier, last summer.



KOOTENAY LAKE.

An early morning scene near Ballou showing the Selkirk Range draped in mist.



GATHERING DRIFT WOOD.

A Stoney Indian Squaw picking up fuel on the banks of the Bow River, Alberta.

The Cottonwood.*

One of the common poplars of the West, and an occasional visitor in Eastern Canada, is the Cottonwood, (*populus monilifera*.) The poplars are soft wooded trees of fast growth, and although the wood is not of great value, their quick maturity is a great advantage. The Cottonwood produces the best wood of the species growing in the West and is a favorite tree for planting where the object is to obtain a quick growth. The favorite habitat of this species is along the river valleys and as it is a native, success with it is not difficult, provided its natural proclivities are given due consideration. It has been largely used by the Forestry Branch of the Department of the Interior in connection with its co-operative tree planting scheme. The number of trees of this species supplied is not differentiated in the last annual report, but the stock provided for future use was 300,000.

Populus, the people, and the rustling whispering, restless leaves of the poplar suggested to the ancients the tossing, murmuring, ever-moving populace, which could never keep secrets or maintain silence but must ever be telling to the vagrant wind and the passing stranger the empty nothings of a vacant hour or the light gossip that might possess a power of evil which it was too empty-headed to have the power to discern. The Aspen Poplar is the chief representative of this characteristic, but the laterally compressed leaf-stem on which the trembling depends is more or less developed in all species of the genus.

In the bright sun the play of light on the leaves as they quiver in tremulous motion has a beauty that compels the gaze of the onlooker and gives a sensation of exquisite pleasure such as only natural scenes can arouse. The Cottonwood has the young branches slightly angled, and the leaves are broadly deltoid, about as wide as they are long, slightly incurved at the base, and narrowing somewhat abruptly at the top into a short, sharp point. The margin is distinctly serrate and sometimes has incurved hairy teeth. The fertile catkins, which appear in the spring, are very

long and from them is derived the popular name of Necklace Poplar, sometimes applied to this tree, and also its scientific designation "*monilifera*" or necklace bearing. It grows to a height of from eighty to one hundred and fifty feet, in favorable conditions. While found only incidentally in Eastern Canada it is more generally found in the West. Macoun's Catalogue makes the following statement in regard to its distribution:—

"Rather common in all the river valleys throughout the prairie region from the Red River westward to the base of the Rocky Mountains. At "Big Stick" Lakes, north of the Cypress Hills, there was a grove of these trees of a very large size in existence in 1880. These had escaped the annual prairie fires, being surrounded and partly covered up by sand, and stood as a proof of the existence of forests in the past, where now there is not even a bush. The trees were over fifty feet high and some of them at least two feet in diameter."

*Contributed by the Officers of the Canadian Forestry Association

THE HUNTER'S MOON.

By Helen M. Merrill.

Night on the mountain, not a sound
 Save dead leaf falling,
 The bay of hound, the far-off cry
 Of wild fowl calling.

Mists swimming under the white stars
 Where the deer drink
 In silence, like dusk shadows looming
 At the lake's brink.

Beyond the summit of black pines
 The hunter's moon,
 Dim growing in the misty light
 That breaketh soon.

Down The Croche.

BY MARTIN HUNTER.

While the route I am about to describe is not actually virgin water, still, I fancy, it is not generally known to anglers.

Though having the entry into numerous club preserves, were I so minded, I decided to avoid the usual haunts of fishermen and—figuratively speaking—paddle my own canoe.

A visit to the Crown Lands Department in Quebec gave me access to a very complete map of the Lake St. John's basin, and that of the St. Maurice to the west. I found the divide between the Riviere au Toma that flows into Lake St. John's and the upper reaches of The Croche was only a few miles, and by referring to the description of the smaller river, I found it was navigable for canoes, and decided there and then that that route would be my field of outing.

Next morning I took the Lake St. John's Railway for the lake and passed through some of the most pleasing and varied scenery imaginable.

Having put up at the Hotel Roberval for the night, next morning I found any number of guides hanging about the piazza of the hotel. The clerk gave me the benefit of his knowledge of the men and selected two first-rate, all-round bush and canoe men. Of course they provided their own canoe, and between us we made up a list of necessary provisions for a ten-day trip. This was handed into the principal store of the place to be filled during the day, and that evening, canoe, tents, provisions, etc., were packed and corded on a wagon ready for an early start in the morning to a point, or rather, a bend of the river nine miles back from the village. This portage exempted us from about twenty miles of the lower part of the river, a portion of almost continuous rapids, so the guides informed me.

By noon the wagon had deposited our belongings at the river. The guides and myself following in another vehicle. The teamsters let their horses graze, while my men loaded the canoe, and I wrote a few pen-

ciled lines home to be posted at Roberval.

We paddled up over about a mile of sluggish water to the first rapid, and there finding a good camping place, and the head guide informing me there was pretty fair fishing at the foot and half way up, I gave orders for the first night's camp to be made, though yet early in the day.

While the men were busying themselves at this work I jointed my rod and fished for an hour or so, with very good success as to number and quality, but small in size. What a soothing and delicious night's rest I had—my bed of fresh pine bows and the gentle rippling of the rapid to lull me to sleep.

The next day we were off bright and early as we had numerous small rapids to pole the canoe up and some where the waters were too turbulent, canoe and baggage had to be portaged. Places where the men could pole the canoe up they put me ashore to walk across the short portage.

That evening at dusk, we landed at the place where we left the Toma and camped on the end of what is known as the long portage. The men were pretty well tired out from their long day and as soon as supper was over, we rolled into our blankets and were soon fast asleep.

The long portage is long, probably three and a half miles, but the walking is good. The land is a gentle roll and was burnt clear to the ground some years previous. We went through in what the guide called a trip and a half and was accomplished in this way.

All the stuff was done up into two bundles, except my rod, gun and satchel: these I said I would carry. Man No. 1 took the canoe and went ahead on the trail as far as he could comfortably carry it, and then put it down. Man No. 2 loaded one of the large bundles and followed the first man until he was tired, and while No. 2 was returning for the second bundle No. 1 had come back on the portage to where he found the bundle, and when he carried this as far as the canoe, he put it down and

went ahead again with the bark. Considerable time can be saved by proper ordering of trips on a portage.

At the upper or West end of the long portage we fell into a small round lake, the waters of which flowed both ways, westward into the Croche and eastward into the Toma.

Across this small body of water we took "Antler Portage." It is about a mile long, the whole length of which is carpeted by beautiful white moss and studded by clumps and avenues of pitch pines. Some of the views down these delightful glades were surpassingly beautiful to the eye.

We embarked at the other end with as little delay as possible as the sun was getting near the tree tops, and we had yet two miles of lake-like river before us to reach the Grand Falls of the Croche. This was our objective point, when we broke camp in the morning.

We camped that night at the upper end of the portage and the roar of the falling waters kept me awake far into the night, so the next day we moved camp half-way through, where the trail lay back from the river a little. Here we found a fresh, grassy glade, a delightful spring of clear, cold water and abundance of dry wood for our camp fires.

A more ideal place could hardly be imagined. Our tents were in easy distance of all the best fishing points.

The great falls are, more properly speaking, a succession of three falls varying in height from forty to sixty feet, each of which is cut into by rocky, tree-clad islets, making the most picturesque scenery one could desire. Too late, I regretted having purposely left my kodak. Here, in this delightful spot I remained three days and had all the sport I wanted for one season. Below the different ledges and around the little bays was room for twenty rods. The fish were in abundance and varied in weight from one pound up to three or four.

Every angler knows the lusciousness of speckled trout direct from the water into the frying pan, and this we had a la de mand.

As a change in our menu one of the guides shot two brace of partridge back of the camp and these were cooked as only a bushman can cook.

Unfortunately my time was limited and it was with much reluctance I at last left the Falls.

Down the Croche we paddled, passing several other minor falls and rapids. The last twenty miles of the river is almost still water and by its torturous windings gives the name "Crooked" to the river. The Croche debouches into the St. Maurice five miles above La Tuque. Here I paid off my men and took the river steamer for Grande Piles. This little steamer carries one safely down sixty miles of the grand St. Maurice, making close connection with the branch C. P. R. into Three Rivers. The evening train from Grande Piles connects with the express from Quebec and at 10.10 p.m. on my tenth night I was in Montreal, refreshed and much pleased with my journey by "Forest and Stream."

The Fourth Annual Report of the Canadian Forestry Association has been issued and any member of the Association who may not have received a copy will be supplied upon advising the Secretary.



"Go ask papa," the maiden said.

The young man knew papa was dead,
Also the wicked life he'd led—

So understood, when the maiden said,

"Go ask papa."

—Fishing Gazette.



Some very reckless statements appeared in the daily press touching upon game preservation and the slaughter of game. One Ontario paper quotes a gentleman who has hunted in Northern Ontario and Quebec for years, as stating that ninety - five per cent of the deer killed in Ontario are slaughtered out of season. As the number of deer slaughtered in season is approximately known, it is easy to check up this statement. Let us suppose that 5000 deer fall to the rifles of hunters during the legitimate season, and this total is under the mark, then 45,000 deer at least, according to this old hunter, must be killed annually, something that is by no means probable.

The "Capital City."*

When a Governor-General coined the phrase "fair city with its crown of towers" to designate the capital of the Dominion he used an appellation which was not only singularly happy in form but is fully justified by the natural beauty of the surroundings in which the City is set and the fine gothic pile of the Parliament Buildings standing out in bold relief on the high rocky bluff overlooking the Ottawa River. Canadians have reason to be proud of the natural charms of their national capital, and may be expected to take a deep interest in and to give cordial support to any measures that may be undertaken to enhance its attractiveness and make it an expression of the national ideals of beauty.

The first step in this direction was taken many years ago in the improvement of the grounds surrounding the Parliament Buildings and of Major Hill Park, both overlooking the Ottawa River and framing in the beautiful view of the Laurentian Hills through the valley of the Rideau Canal. Quaintness is lent to the picture by the old canal locks, interesting in their reminder of the fears of invasion from the South and the industry and engineering skill of Colonel By and his associates by whom it was constructed under the direction of the Imperial Government as a military route.

More recently the city itself, by acquiring several small parks throughout its bounds and the beautiful Rockcliffe Park in the eastern suburbs, has made still further advances. But no comprehensive scheme was undertaken till the appointment of the Improvement Commission by the Dominion Government. The Commission have projected and largely carried to completion a roadway across the City from Rideau Hall, the residence of the Governor-General, in the eastern suburbs, by the way of King Edward avenue and the banks of the Rideau Canal, to the Central Experimental Farm on the West. Where trees were already growing on this route they have been worked into the general plan with good ef-

fect, and elsewhere trees and shrubs, both native and foreign, have been set out. This is now, and will in the course of years become increasingly more so, one of the most beautiful drives to be found in any city.

The funds of the Commission have recently been consolidated and the personnel added to so as to make it more clearly national rather than civic, and in order to have larger plans fully considered and matured it was decided to ask for a report on a general scheme from an expert landscape architect. The choice fell upon Mr. F. G. Todd, of Montreal, and we make no apology for bringing to the attention of our readers an outline of the proposals submitted by Mr. Todd.

The keynote of the proposals is found in the following quotation:—

"We have only to study the history of the older cities and note at what enormous cost they have overcome the lack of provision for their growth to realize that the future prosperity and beauty of the city depends in a great measure upon the ability to look ahead and the power to grasp the needs and requirements of the great population it is destined to have. Not only is Ottawa sure to become the centre of a large and populous district, but the fact that it is the capital of an immense country whose future greatness is only beginning to unfold, renders it necessary that it shall also be the centre of all those things which are an index of man's highest intellectual attainments, and that it be a city which will reflect the character of the nation and the dignity, stability, and good taste of its citizens."

Large expenditures have been necessitated in many cities for parks and other improvements by the failure to look far enough ahead and provide for the needs of the future. Washington was a unique exception but the plan laid out for that city over a hundred years ago was discarded after half that time had passed and is now

*Contributed by the Officers of the Canadian Forestry Association.

being returned to when the development of the intervening years has rendered necessary the outlay of millions of dollars to carry out what might have been accomplished earlier at a comparatively small expenditure. Ottawa is not a large city at present but is growing steadily and unquestionably it will be possible to lay the basis of a general scheme of improvement more easily and with a less outlay now than at any future date.

One of the proposals involving an extension not previously suggested, is for a large natural park or reserve on the Quebec side of the river in the vicinity of the Gatineau River and Meach Lake. As Mr. Todd justly observes, the Dominion of Canada is famous the world over for the extent and beauty of her forests, and for this reason it would seem appropriate that there should be reserved in close proximity to the capital good examples of the forests which once covered a great portion of the country. Not only will these reserves be of inestimable value to future generations as an example of the original forest, but they will also provide a place where nature may still be enjoyed unmarred by its contact with humanity. The suggested reserves include lands which originally were densely forested and which now include groves of well grown hardwoods such as hard and soft maple, beech, ash, etc., and also less extensive areas of second growth pine and spruce and other coniferous species. The gorgeous setting of these woods in their autumn colors is a sight not easily forgotten. The scenery of hill and lake and stream is that characteristic of the beautiful Laurentian formation and the rocky character of the district renders so much of it of little value for other than park or forest purposes that the few thousand acres necessary to the carrying out of the scheme could be obtained at a reasonable figure. The City of Boston within the last eight years has spent about ten million of dollars in creating just such parks and reserves which, if purchased fifty years ago,

could have been acquired for about one-twentieth of this amount.

The foundation for suburban parks is already laid by Rockcliffe Park in the east, having a beautiful outlook over the Ottawa and Gatineau Rivers from its rocky elevation. This park which is pleasantly wooded with groves and groups of matured hardwood and coniferous trees, was established by the city. It has been left largely in its natural condition, and is a favorite resort of children and others during the warm summer days and evenings. Mr. Todd suggests an extension of this park so as to take in similarly wooded lands in that vicinity and to extend to the Dominion Rifle Range, which lies some distance beyond.

The west end of the City above the Chaudiere Falls and overlooking the Little Chaudiere and Remous Rapids has a considerable area of land fairly well wooded and of little value for other purposes, which, with the islands located in the river just opposite, would make a park of great beauty, and the dark waters of the broad river foaming over their rocky bed, give life and animation to the scene. An extension of the driveway to the Experimental Farm so as to connect with this site would make the scheme of parks and parkways through the City complete, while the suggestion is made that a boulevard be constructed along the Ottawa River for the return journey.

These are the main features of the scheme as suggested, though there are some further points and minor details which have not been referred to. Enough has been given however to show that the plan is a comprehensive one and that if adopted and carried to completion, it will make of the Capital city of the Dominion one of which Canadians may well be proud, and which will bear comparison with that of any other country—both for its natural features and as a concrete presentation of the national ideals of beauty and civic adornment.



Wood Utilization at Deseronto.*

While Germany is looked to as the exemplar in forest management the differences that obtain in other countries must always be a check on a too close following of the model. The rate of stumpage in Germany has been given by a good authority at \$20, while in Canada it ranges from an unappreciable amount to as high now as \$6, though \$2 to \$3, might be taken as the average. This difference is not merely the result of higher prices for lumber for the difference in that respect is not very great. According to the reports submitted a few years ago by the Consuls of the United States in regard to American lumber in foreign markets, the prices at which pine and fir lumber was being sold at Frankfort by lumbermen who had saw mills in Bavaria, Wurtemberg and Baden, would be about equal to \$30 per thousand feet, B.M., for clear pine lumber one inch thick, twelve inches wide and sixteen feet long, \$25 for half clear, \$22 for good and \$17 for culls.

The value of the wood crops depends on the expense of cutting and getting it to market, which is determined mainly by the scale of wages and cost of transportation, and on the possibility of making profitable use of all the forest products. Where all parts of the tree have a value, even down to the twigs, there is a larger return financially.

The question of methods of utilization of forest products is therefore of great interest even though the stage may not be reached where everything produced, even to the smallest dimensions will bring a return.

The factories at Deseronto furnish an example of very complete utilization of the wood of different kinds produced on the limits and a short description of the works at that place may give some points of interest. Deseronto is beautifully situated on the slope of a hill overlooking the Bay of Quinte and has some lake traffic and local traffic, particularly with the county of Prince Edward, for which it is the near-

est port. Practically, however, the existence of the town, which has a population of 3,725 according to the last census, is dependent upon the lumber industry and other industries connected therewith. The lumber mill was established by H. B. Rathbun and continued by his son, E. W. Rathbun, and round it has grown up additional industries for the further manufacture and more general consumption of the products of the forest.

Both softwood and hardwoods are taken from the limits as the variety of manufacture makes it possible to use both. The logs are not cut to a uniform length in all cases, as by leaving them of irregular size, the whole log length of trees which would not cut equally into logs may be brought out. The ends of such over-sized logs are cut off before they are passed into the mill and are sent to be worked up in any of the industries for which their size and quality make them available.

In the sawmill which has a capacity of 300,000 feet B.M. per day, the logs are converted into lumber in the usual way by band and gang saws. This process, though familiar, is one of unending interest as the carriages swing backward and forward and under the skilful manipulation of the log handlers, on whose judgment and skill so much depends for getting the best value out of the logs, the saws steadily eat their way into the heart of the monarchs of the forest. The edgings and other portions of pine logs not suitable for boards are passed on, some to be cut into lath of different grades, while other pieces of suitable quality are prepared to be made into rollers for window blinds, and others again into mouldings. Pieces of greater width are made into box shooks and barrel headings in another building. Odds and ends are sent on to the match splint factory and whatever cannot be devoted to any other purpose is sold as firewood, for which there is a ready demand at a good price.

*Contributed by the Officers of the Canadian Forestry Association.

The door and sash factory, while using some board material, is largely supplied from smaller pieces which can be worked into the panels, mouldings and the frame work both of doors and windows. Pine is the wood most used for this purpose, hardwood being but little employed. The products of this factory find their way as far as the British market.

The box and heading factory makes use of smaller pieces, the equipment including in addition to what is necessary to prepare the material a simple but ingenious machine for nailing the boxes together and a complete printing outfit for labels. Here also are made racks for bricks in which thin strips of about one inch in width and a foot or more in length are employed.

The smallest blocks are passed on to the splint factory, where they are converted into match splints for the British markets. In this industry the work is light both in cutting and packing, the materials handled being small in bulk and weight. It is therefore done mainly by boys and girls and gives an opportunity for employment to those who have reached a suitable age, thus augmenting the family incomes and by rendering the conditions of the workmen more comfortable, making them more contented.

In the cedar mill, logs which are sound and of proper size are made into ties. Posts are sawn from others and the remaining pieces are worked up into shingles. The deftness and celerity with which the shingles are cut from the blocks and differentiated into the several grades of quality, are a wonder to the uninitiated. All progress in the more economic use of products means an increase of dexterity and a higher grade of intelligence in those employed, thus being an advantage from every point of view. Skill and foresight are developed.

The hardwoods are sawn into boards and disposed of as such, but the same care is exercised to make use of all material. The hardwoods that are suitable for lumber, and some soft woods are made use of in the charcoal plant. The wood is baked in retorts, both the newer metal retorts and the old style brick ovens being used at Deseronto. From one cord of wood are produced 40 to 50 bushels of charcoal, a bushel being equal to 20 lbs. Other products of

value from a cord of wood are wood alcohol 3.05 gallons, tar five gallons, and acetate of lime (lime being added) 110 lbs. The fuel for heating the retorts is supplied by the gases therefrom, mainly carbon, monoxide and hydrogen, and by the tar product mixed with the finer portions of the charcoal which cannot be used in the smelting works. The charcoal works are not now under the control of the Rathbun Company and the smelting company has always been a separate organization.

The Deseronto Iron Company, which came from the United States and has been operating for a comparatively short time in Canada, was induced to start its works on this side of the border, according to the statement of its management, by the placing of a duty on charcoal by the Government of the United States, making it more profitable for the Company to locate nearer the source of fuel supply. The special advantage of charcoal as a smelting fuel is the fact of its purity as compared with other forms of carbon used for this purpose, such as coke. The ore being similar in composition, this gives a purer product, thus making it possible to better control the chemical constituents. A disadvantage under which charcoal labors is a less ability to stand the crushing strain in the furnace. For this purpose the firmer hardwoods give the best material and only the larger pieces of charcoal are used, the dust and smaller material being returned to the charcoal works. The furnaces used are, however nine feet, six inches in diameter and sixty-one feet in height, while an ordinary coke furnace would be thirteen feet in diameter and eighty feet high. The product is from thirty-five to forty tons of pig iron per day and is all disposed of in the Province of Ontario. In fact the only difficulty that stands in the way of the continuance and extension of the works is the question of the supply of charcoal. It is necessary at the present time to obtain occasionally a supply additional to that already furnished by the Deseronto works, and the future of the wood crop is so problematical and so evidently reaching a less satisfactory position as time goes on that extension may not be the part of wisdom.

From the foregoing outlines some idea can be obtained as to the extent and the

varied ways in which the wealth of the forests is being made use of in Deseronto. Such an extension of methods of utilization means an increase in the value of the product and so of the raw material, thus bringing nearer the time when it will be financially possible to put forest management in Canada on a sound and scientific basis. It brings out clearly also the importance of the forest as a means of livelihood for the people. The existence of the

works means first the employment of numbers of men in the woods, it means the continued prosperity of a town of nearly 4,000 inhabitants and of the country surrounding it, and it means the establishment in Canada of other industries to supply raw materials for the manufacturers of the Dominion, so that the progress of the country and the perpetuation of the forest are bound together in many ways and by the closest ties.

It is by no means uncommon for wild fowl on their migrations to encounter a fog, and when they do they immediately alight to await more favorable conditions. They seem perfectly incapable of making a direct course in foggy weather. The writer has seen this upon more than one occasion. At such times geese are very helpless; their natural wariness seems to desert them entirely, and they are easy victims to the first farmer's boy with a gun that comes along. On the 28th of November, according to the *St. John Sun*, the inhabitants of Chatham, N. B., had an opportunity of witnessing just such an interruption of the southward flight of the last of the migrating geese. According to that paper: "A storm was in progress during the day which took the form of rain and sleet. The rain froze as soon as it reached

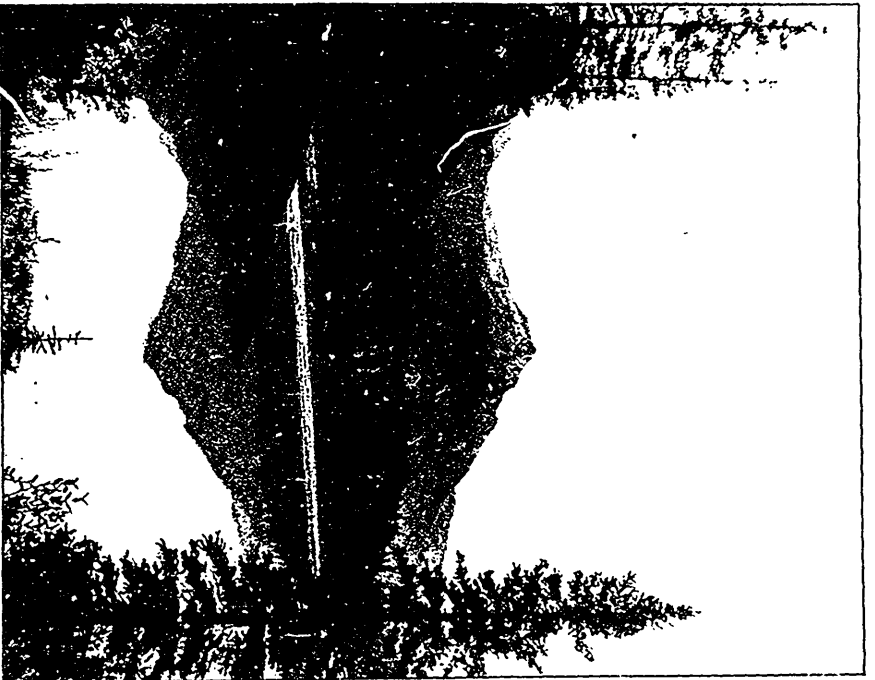
the ground, as the temperature was low, and it soon became evident that the geese were getting seriously impeded in their southward flight, as large flocks were observed flying with labored efforts and very near the ground. A telephone message was sent in from the railway station to the effect that a large number of geese had lit in a field in the outskirts of the town and some sports proceeded to the place indicated, but it is not known that any birds were killed, as they made off after resting awhile. Reports indicate that the whole country from Napan Bay to Barnaby River and as far north as Bay du Vin was literally a resting place for the wearied and ice-burdened wild fowl. The fields, barrens, marshes and even the woods, were invaded by the birds, but very few are reported as having been killed."

The *London Times* said recently that 300,000 tourists go to Switzerland each year, and that these tourists give occupation to 35,000 people. Of course Switzerland has got the densely populated European countries to draw from, but we in Canada have got the United States to

draw upon, as well as our own Empire, together with some assistance from the more wealthy classes of continental Europe. For scenery and sport you may travel far and you may travel wide, but you will not easily find Canada's equal. Why should we too not have our 300,000 tourists visit us?



BEAUTIFUL, B. C.
A scene in Vancouver Island.



EMERALD LAKE, B.C.
The mountain in the background is Mt. Field. Emerald Lake is reached from Field Station. It is a famous water for trout.



THE COTTONWOOD.

Populus Monilifera, is a hardy, graceful tree, typical of the north, though not so valuable, economically, as many others.

Indians and the Weather.

BY C. C. FARR.

Even amongst the indoor-loving denizens of cities the weather is a never-failing subject for comment. Imagine then the importance of it to a people that practically lives out of doors, and then one can readily understand how, on meeting an Indian, his first word, after salutations are exchanged, is an allusion to the weather. It may be "Meeno-keejigan", "It is a fine day"; or, "Keemuun", "It is raining." If it is winter he will probably say "Keesina", "It is cold", or "Sukipun", "It is snowing." When the wind is blowing hard, it is "Geetchi-nodin", "Big wind." Whatever it is, it is nearly sure to be some allusion to the existing meteorological conditions, showing how ever present in his mind the subject is, for the weather is so bound up with his daily life, that it is impossible for him to forget it. It is only natural that he becomes a keen observer of all phenomena, terrestrial and celestial, connected with it, and that he can forecast with fair precision, but this very knowledge, gained by observation, and experience enables him to recognize the fact that he is often liable to be wrong, and he holds his white brother, who is afflicted with the malady of "cock-sureness" in this matter, somewhat in contempt, tinged with amusement. He is not like that old fraud, "The old trapper," who pretends to deduce the future from signs that would imply a greater intelligence, and reasoning power in the lower animals than in man; such as the manner in which a muskrat builds its house, or the quantity of food supply laid in by a family of beavers, which kind of "rot" is on a par with the superstition of the simple farmer, who watches with bated breath the milt of the last pig that he kills, with the view of determining the probable severity of the coming winter.

The Indian is inductive in his methods of his treatment of the seen world, for he builds his theories on known facts, and is always ready to make all allowance for the modifications of conditions. For instance when he sees a large flight of migratory

birds in the fall going south, he does not ascribe to them a foreknowledge of what is about to happen, but he knows that, in addition to their natural migratory instinct, they have been driven before, or have rather outstripped conditions of cold and storm that would reduce, or perhaps, entirely destroy their food supply; especially if they happened to be of an insectivorous species, and hence they would be to him, as it were, a telegraphic message from the far north, a hint, in fact, that Boreas was on its way south.

The Indian loves the sun. In the early spring he will fairly bask in it. When the ice begins to soften under its mid-day rays, he does his travelling at night, or in the small hours of the morning, until he can feel the warmth of it; then he picks out a spot sheltered from the north wind, a bank, or the sheltering shore of a lake, where he gathers copious balsam or cedar brush, and lays it down, to form for him a luxurious bed, whereon he can sleep without need of blankets, for the sun's rays act for him as blankets and thus he courts Nature's sweet restorer, until either the pangs of hunger or the gathering chill of evening, force him to leave his luxurious lair. I have often wondered why Indians have not been sun-worshippers, for to them the sun means so much; life, light, heat, and comfort; but they are not, and the only explanation that I can think of is, that the sun lacks the power of volition and is so set in its course, that, to a rational being such as the Indian undoubtedly is, it appears an instrument, or slave of a still greater power, say, the Geetchi-manitou, The Great God.

The Indian word for sun is "Keesis", and from it is derived "Keejikan", "Day" as "Keesis," "Month" is derived from "Tipik-keesis". The moon, or "Night sun", and "Keejigahtay" signifies "It is moonlight." "Wahban" is "Dawn" from which comes "Wahbunk" "Tomorrow", and "Pee-dah-bun" "The first sign of dawn", formed from the root "Pee" "coming towards."

Another term for light is "Wah-sia" which implies rather a brightness than actual light, for instance, the Northern Lights are called "Wahsia-tipikan." "Brightness at night." A bright display of these lights signifies, to the Indian, fine weather, but somewhat cold, in proportion to the time of year. "Wahsi-konaysie" means "Lightning" and that redundant polysyllable "Wahsikahkinendamhagan" expresses the insignificant tallow "dip." "Onigoush" is "star", and I am somewhat at a loss regarding the full meaning of the word, unless it is derived from, or connected with "Onaykisah" which implies "trembling" i.e. "twinkling." When the stars are very bright at night the Indian cheerfully prophesies snow or rain, according to the season "Cloudy" is "Wahweewan", and "Meshahkwan" is "Clear sky" from "Meshah". "large," and "Kwan" "space."

When a Christianized Indian sings that he wants to go to Heaven, he sings "Wahk-wing ne we-ijah" : "To the clouds I want to go," for he has no conception of space beyond. The pagan Indian is still more earthly in his aspirations, as will be shown later on.

The points of the compass are named, in two cases, from the character of the winds that blow from them; for instance, the North wind is called "Kee-waydin" : "The wind that goes back" from the word "Kee-way" : "to go back", again illustrating the observant nature of the Indian, who has learnt that in these northern latitudes, no matter from which way the wind may be blowing, it is bound to go back to the north.

The south wind is called "Shawwinin-noe" : "The soft, kind, gentle wind", which in a cold country expresses the character of this same wind to a nicety.

The east wind is called "Wahbahnin-noe," which means the wind that comes from the "dawn."

The origin of the name of the west wind must be wrapped up in their religious beliefs, and conceptions of a hereafter. They call it "N'gahbehan-noe." : "The wind that

comes from the place where I am going to." "N'gahbehan" meaning "I am going to be (there)". Now, if we think over it, we remember that Longfellow sends his hero, Hiawatha, out into the West, as the sun went down, when he wanted to get rid of him, and in so doing he showed an accurate knowledge of their beliefs regarding a future state, for, it is in the west that the pagan Indian considers his future home to be. He looks upon this earth as the sum total of it all, and at the last, instinctively follows the light of the sun, his friend, and comforter. To him it would appear madness to turn his face to the dark, uncertain south, and he would have to cross the night to meet the dawn ; so his instincts bid him, in the evening of life, to turn his face to the light, to the setting sun, and to follow it to the place where it sinks below the horizon, and where he probably thinks the sun is again lit up at the perpetual source of light, to enable it to run its beneficial course another day.

I am afraid that after all I have not given much information of practical value to the white traveller in the bush, such as would enable him to determine the probabilities of the weather by means of the set theories, and traditions of Indians, but as I have said before, they are not dogmatic upon the weather, of which they are undoubtedly keen observers, and in determining the immediate meteorological probabilities, they base their calculations on previous experience, just as you or I might, and with often like results, for after all, amongst white, red, and black, such prophesies are simply conjectural, coupled with a slight admixture of the simple rule of three.

A busy life has not given me much time to study these matters from a purely philological stand-point, hence I cannot speak with authority, and I may say that my etymological deductions are simply based upon my limited knowledge of the Indian language, and my limited powers of reasoning.



Climbing in The Rockies.

By ST. CROIX.

It was a foregone conclusion that so soon as the climbing world had discovered the northern Rockies, that vast solitary mountain range would soon be made to unfold the mysteries of its forest-clothed valleys and virgin peaks, and now these things are coming to pass. The latest contribution to our knowledge of the northern portion of the cordillerean chain, is a work just issued from the press of Longmans, Green & Company, by Messrs Hugh Stutfield and Professor J. Norman Collie, which is entitled "Climbs and Explorations in the Canadian Rockies." Several useful books have been published dealing with the Rockies, and one by Mr. Wilcox merits the highest praise, judging it solely on the score of artistic merit, yet this latest work far exceeds it in interest, as Messrs. Stutfield and Collie have been perfectly indefatigable in their explorations, wonderfully successful in their climbs, and particularly happy in their joint literary effort.

Professor Collie made the acquaintance of the Rockies in 1897, when in company with Messrs. C. E. Eay, Rev. C. L. Noyes, C. S. Thompson and others, he made the ascents of Leifroy and Victoria, and set foot upon the great Waputehk ice-field.

Other visits to the mountains followed, the authors being fascinated by their beauty and solitude of the glorious Rockies; they were also exceedingly anxious to discover Mounts Hooker and Brown, reputed to be of great height, and, in the end, they actually did discover these two peaks, and had to take a great many thousand feet off their reputed heights after having done so. This result gives me, personally, the greatest satisfaction, because in '98 I pointed out, in the columns of the Manitoba Free Press, that Mounts Hooker and Brown either did not exist, or else that they must be masquerading under false pretensions, as there could be no mountains of that height in the region in which the North Saskatchewan has its source. My

contention was scoffed at by an Edmonton editor, who, although he had never been there, evidently felt a personal affection for the mythical 15,000 feet mountains, and resented any attempt on the part of an outsider, that is to say, a person residing beyond the limits of Edmonton, from attempting to dispossess them of their pride of place.

Being unsuccessful in '97 in finding these illusive mountains, though the climbers conquered Mounts Freshfield and Forbes, and explored the dreadful brules of Blaebery Creek, Professor Collie gave his spare time during the winter of '97 and '98 to consulting all the literature he could find in London dealing with the Canadian Rockies.

In the spring that followed, the indefatigable Collie, "feeling drawn," as he himself says, "by the fascination of those wild western valleys, irresistibly back to the Canadian Rockies, laid his plans for another trip." Mr. Stutfield accepted an invitation to accompany him. Their plans were: "to reach the actual sources of the vast Saskatchewan, Athabasca and Columbia systems; to explore and map out the unknown mountain country, where they took their rise; to locate, and perhaps, to climb the semi-fabulous peaks of that region; to rehabilitate if the facts prompted, the outraged majesty of Mount Brown—all this with much more besides, was a tempting enough programme in itself; but he also hoped to work in a little sport, on his own account, with mountain sheep, upon bear or goats, so long as such frivolities did not interfere with the more serious business of map-making and mountain-ering."

This programme, ambitious as it was, was pretty well worked through before the end of the summer, although had it not been for Stutfield's unerring rifle the party would have had to beat an ignominious retreat before the completion of their work, owing to lack of provender. The actual dethroning of Mounts Hooker and Brown

could not be verified until the party had returned to civilization. After so doing Professor Collie discovered a reference in "Baneroff's History of British Columbia" which had been published in the Companion to the Botanical Magazine, by Dr. W. T. Hooker, and which, eventually, gave the solution to the problem. Mount Brown had to go down into the 9000 feet class, and the Professor's verdict was: "These two fabulous Titans, therefore, which for nearly seventy years have been masquerading as the monarchs of the Canadian Rockies, must now be finally deposed; and Mounts Forbes, Columbia and Alberta, with Peak Robson, west of the Yellowhead Pass, must reign in their stead."

In the summer of 1900 another visit was made to the mountains, the Bush River being explored. In 1901 the party were back again and did some good climbing. Strange to say, because the reverse is usually the case, one of the party became more luxurious in his tastes than he had been on former expeditions, and actually took a mattress into the mountains. This mattress was doubtless a great comfort at night and also a horrible encumbrance on the trail. However, it caused the poet "lariat" of the party to burst forth into poetry, and very good poetry too—so after all the mattress was not without its good points. The principal climbs of the seasons were Mounts Forbes, Howse, and the Lyell ice-field.

Mr. Stutfield contributes a chapter, summing up his sporting experiences during his visits to the mountains, and we do not think that anything better has been written, or a more absolutely trustworthy. As all experienced men know game does not abound in the Rockies; it is very much more abundant in the Coast Range, on the interior plateau, and in parts of the Selkirks, yet there is more or less shooting to be had, and shooting, moreover, that will repay a hardy, keen sportsman. Sheep appear to be more numerous at the head waters of the Brazeau than anywhere else. The Rocky Mountain goat is widely distributed, and few sportsmen should return without a couple of good heads. Bears, black, brown, and grizzly, abound more or less all through the Rockies, but hunting them is an extremely difficult matter, and

not one is shot for every twenty trapped. The almost impenetrable thickets of Blae-berry Creek are a favorite habitat of bears, as are also the immense forests on the slopes of the Selkirks, and along the main side of the Rocky Mountain chain, but the hunter may not see one for weeks together. Bruin will come into the open to feed on the berries at uncertain intervals, but as a rule remains concealed in the mysterious depths of the forest. In the winter he dens up under some root or ledge, sheltered from the piercing winds by a heavy covering of snow.

The conclusion of Mr. Stutfield's interesting chapter is well worth quoting, as it breathes the spirit of true sportsmanship

"Happily for the hunter whose lot is cast in these times when large game is growing even scarcer, if only he be a true lover of Nature in all her forms, sport in the mountains offers other joys than those contained in the mere gunning part of the business. It is enough for such an one, even if a stalk be out of the question, to sit out in the sunshine on some ridge or hill-top, and watch the quarry, whether it be Rocky Mountain sheep, or goat, or alpine chamois, or ibex. Again, half the charm of mountain sport as opposed to mountaineering proper, is that it gives you so much time to admire the scenery. As you lie concealed behind some knoll, or rocky protuberance, you can watch at your ease the face of the landscape, changing after each change in Nature's moods, the great glaciers and snows around you, while above them the tall peaks thrust their heads up into the deep, blue sky. Below on the grassy hillside, the big-eyed, white-faced ewes, keep watch and ward over the lambs, frisking and gambolling around them, while further off on some jutting promontory of crag, may be seen the curving massive horns of an old sentinel ram, his eyes intently fixed on the middle distance, alert and ready to give the alarm the moment that danger threatens. Such a sight consoles you for much hard work or long hours of waiting, or even for the disappointments of the chase; and you feel that kill or no kill, after all your labors have not been entirely in vain, and that life is worth living—at any rate in the mountains."

The Finding of Lost Lake.

BY FRED C. ARMSTRONG.

The evening of September nineteenth found a party of six in camp by the shores of Beaver Lake, at the head of Burnt Hill brook, New Brunswick. The Burnt Hill is one of the most important tributaries of the upper southwest Miramichi. The party was made up of three sportsmen from New York, and their three guides, and they formed a very jolly crowd as they sat before the roaring fire of burning logs yarn-

ing. One of the sportsmen at length said, addressing me:

"Fred, I have a proposition to make to you; but as it will demand a lot of skill to succeed if you accept, think it over a bit before replying."

"All right, let's have it."

"Well," said he, "it is this. I want you to start off tomorrow, take a camp helper with you, and cruise until you find a new lake or pond, where we may hunt all by ourselves. I will give you three days' leave and if you find such a lake, spot out a trail to it by the shortest route. Do you think you can do it?"

"I think I can, Mr. Moore. Of course, this is a strange country to me, but I will try and I think I can succeed." And after talking the matter over we settled ourselves in our blankets and were soon in dreamland.

On the morning following, bright and early we packed our provisions in a bag, and Stephen Campbell and I started off for what was to prove a long tramp. We had travelled about two miles, hardly ever speaking, when we came upon a moose standing in the road. He saw us first, but not getting our wind was reluctant to go. At last, however, he went crashing through the underbrush, the maple and rowan twigs rattling against his horns as he freed his way. Not a little relieved by his departure, because a big bull in autumn is like a college freshman—you can never guess what he will do next—we resumed

our tramp, and at four o'clock came to Eagle Bird camp, where another sportsman was. He had secured a large head with 45-inch spread, with twenty points on each side, and after telling us about their exciting experience in getting him, it was too late to travel, so we concluded to stay there that night. We had a fine dinner of moose steaks and trout before turning in.

By six next day we were off once more. I determined to travel south by the compass, through a lilly region to which we were strangers. We climbed many quite steep mountains, and at length from the summit of one, somewhat higher than its neighbors, we saw what appeared to be a deep valley, which we felt sure contained a lake. I climbed a tall spruce, and had hardly got to the top when I heard a cry from Steve. "For God's sake, Fred, come down quick, there is a big black bear coming!"

I yelled to him: "Stay where you are, the bear won't hurt you"; but all to no purpose. Off he started through the woods, like a bull moose—jumping over tree-tops, and breaking down the bushes, so that he could have been heard a mile away.

I shinned down that tree as quickly as I could without actually falling, and looked about for the bear. It took a few seconds to distinguish him—and then I saw a big, black stump, that Stephen had mistaken for bruin. So I climbed slowly back to my perch near the top of the big spruce and took a careful bearing by compass of the valley. Stephen returned, with clothes torn, and face and hands bleeding. He was so badly rattled that he thought the bear had chased him a mile or more, he having escaped merely through his fleetness of foot.

I told Steve we would not take lunch until we took it in the valley to which we were bound. After walking four miles we came to a large barren with a small winding deadwater through its centre. I told

Steve not to make a fire—as then we might see game. Sure enough before long we saw a bull caribou, and later several others, as there was a herd in the barren as I had guessed by the fresh tracks leading in. Many a sportsman would have paid well for such a sight. The bull fed within twenty yards of us and might have come even nearer had not Stephen let an unfortunate sneeze.

After our lunch, I took a bearing to a high hill, and started for it. It required three hours' steady travelling to reach its summit, but we were rewarded by a most superb view. All around lay miles and miles of forest, and, best of all, at the foot of the mountain, was a most beautiful pond, just the place for moose.

(To be continued.)

We ran down the mountain and before long were standing by the water side, looking at as sweet a place for moose to feed as ever I have seen. Tracks were numerous and we knew that if we could get our sportsmen there they would have good sport.

By this time it was growing dusk, so we made a bough shanty, and ate a frugal meal of cold corned beef, having finished our bread at lunch.

So far all had gone well, but we could not help asking ourselves three questions:

Where were we?

How far were we from camp?

How are we going to reach it, seeing that most of our grub was gone?

Mr. C. Camsell of the Canadian Geological Survey, read recently an interesting paper on the Country of the Wood Buffalo, before the members of the Winnipeg Historical Society. The Honorary President, Rev W. A. Burman in introducing the lecturer, spoke of the large portions of this country which are still unexplored, and also of the large field for investigation in the department of natural history, particularly with reference to the smaller animals, birds, insects and plant life. Mr. Camsell, he said, had been able to explore some parts hitherto practically unknown.

Mr. Camsell told in a very interesting way how in 1902 he had gone out under instructions of the Geological Survey department, to make an exploration of the country lying to the west of the Slave river and between the Peace river and the Great Slave lake. The objects of the expedition were primarily geological, with reference particularly to the large salt depos-

its and beds of gypsum; in addition to which he was instructed to collect as much information as he could with regard to the numbers and distribution of the wood buffalo. He described the journey to that far off region, gave glimpses of the life of the Indians, and indicated the limits beyond which the wood buffalo are not found. The number of these animals had been estimated at 400; they were found, he said in small bands of ten or a dozen. The numbers had formerly been far greater; the diminution was ascribed by the Indians to timber wolves, which destroyed the young buffalo. The wood buffalo and the buffalo of the plains were considered to be of the same species, the former being larger animals, owing to more favorable environment. The lecturer spoke further of the salt springs, the gypsum deposits, and the beaver dams which were a characteristic feature of that country.



Our Medicine Bag.

Although Alaska is not by any means Canada, yet we think that all Canadian hunters of big game, as well as our American friends who come in such vast numbers every year, will be intensely interested in a little book just published by Messrs. Horace Cox, Windsor House, Bream's Building, London, E. C. It is called "Summer and Fall in Western Alaska", and it is written by Colonel Claude Cane. We do not recollect any book that gives a greater feeling of confidence in the writer than this one. It breathes a spirit of honesty and fair play that is very refreshing. Colonel Cane is evidently too good a sportsman to be a braggart; he has no need to vaunt himself, as he has just finished one of the most successful sporting trips to Alaska, of which we have any knowledge. We will not spoil the interest of the reader by quoting too much, so we will merely extract what the author wrote about firearms. He says: "My weapons were only two in number, a .256 Mannlicher-Schonauer and a 12-bore Paradox. I have used the small bore Mannlicher ever since 1895, both in Scotland and abroad, and have the greatest possible faith in it. Owing to its very high velocity and flat trajectory, I find that I can do far better work with it than with any other rifle, and the shock given by its tiny little bullet is out of all proportion to its size. I may have been exceptionally lucky, but I have shot nearly fifty red deer stags, a good many sheep, moose, wapiti, bears, etc., with it, and have only lost one wounded beast, a red deer stag, and he was hit in the haunch, so that it was not the rifle's fault. The Schonauer pattern is more convenient than the older one, as there is no underneath magazine to get in the way when one is carrying it, otherwise, of course, the weapons are exactly similar. That it did not disappoint me this time, those that read my narrative to the end will discover. The Paradox I took for use with bears, and possibly moose at

close quarters, and as a shot gun. In the latter capacity it came in very useful, but as a rifle I was very much disappointed in its performance."

Further on the author writes: "In the matter of a choice of a weapon, of course, everyone has his own ideas. I think the Mannlicher cannot be beaten—indeed, I do not think it has any equal; but all the modern small bores are so good that I do not think anyone who prefers a Mauser or a .303 will be making any great mistake. My experience with the Paradox is not such as to make me recommend it, though I may have been unfortunate; and, if a heavier rifle is desired for bear or moose, I should recommend one of the larger bore nitro rifles, such as can be obtained from any of the leading makers. Expanding bullets should, of course, be used with whatever rifles may be selected. On this trip I was using Jefferies' split bullets in the Mannlicher, though I had previously been rather prejudiced against them on account of two cases I had in Scotland, when they failed to expand in a stag. This time I am bound to say they did their work admirably, and the way they crumpled up two big bears at Krison River was a caution. A shotgun, if brought out, had better be left at the Coast for use on the duck later on, and a small .22 American rifle, with plenty of cartridges, which weigh next to nothing taken for the grouse and ptarmigan. Besides giving one much better sport a small rifle like this has the advantage of being almost noiseless." One of the reasons why Colonel Cane was so successful was that he possessed the rare faculty of doing without things. If the ambitious tyro would condescend to take a leaf out of the Colonel's book, and leave behind him two-thirds of the rubbish he usually carries into the woods, he would very possibly enjoy a measure of the success, which fell to the lot of this admirable sportsman.

Messrs. Cadham and Ritchie of Beausejour, Man., secured a magnificent moose a piece last month.

Some very fine caribou were secured in November on Hooper Creek, flowing into Canoe Lake, near Crawford Bay, Kootenay Lake, B. C.

Four Teulon hunters returned to that Manitoba town with six moose a short time ago. Manitoba is very well stocked with moose, though the heads are not quite so good as those of the Ottawa Valley.

The first preliminary, and by no means complete, statement of the deer killed this season in Ontario shows that 2950 have been accounted for, having a total weight of 399,101 pounds. Many of the best northern districts have yet to be heard from.

Moose hunters have had more than usual success this season says the Birtle Eye-Witness. Two loads of them have already been brought down from the Riding Mountains and accounts from other districts are equally good. Hunters say they are more numerous than for years and it is a common thing for those driving over the trails to pass bands of jumping deer.

In last issue of Rod and Gun we were made to speak of "The Longman Gun Light Corporation of Middlefield, Connecticut." Of course our readers understood The Lyman Gun Sight Corporation was intended. By the way how far ahead of his day the late William Lyman was. Only quite recently have his sights secured in Europe the recognition they deserved.

A Cape Breton farmer, M. D. MacDonald, of Murray Bay, Victoria County, has got into trouble with the game warden for

killing a moose with a pitchfork, out of season. Moose some years ago were very abundant in Cape Breton; now they are increasing slowly in number, but, of course, if free and independent electors are to kill them with pitchforks, we can hardly expect moose ever to be "real thick."

Dr. A. Harold Unwin and Mr. Norman M. Ross, of the Dominion Forestry Branch who have been in the West during the past summer superintending the tree planting under the Government co-operative scheme, have returned to Ottawa. They report a continued interest in tree planting and a favorable condition of the plantations set out. The land secured by the Branch for a nursery is being put into good condition and the supply of trees will be equal to the demands.

The city of Vancouver claims to be the only city on the North American continent where goats, deer and bear are to be shot within sight of the city hall. It is perfectly certain that these animals may be shot as stated, and only last month Messrs. Fred Madison and Charles Mullen of that city shot four goats, just across Burrard Inlet, upon which the city is situated. The mountains on the other side of the arm are exceedingly lofty, but a man standing 4900 feet or so up in the air, is able to look into the city of Vancouver, and may be seen with the aid of a good glass from the city hall, so that the claim is substantiated.

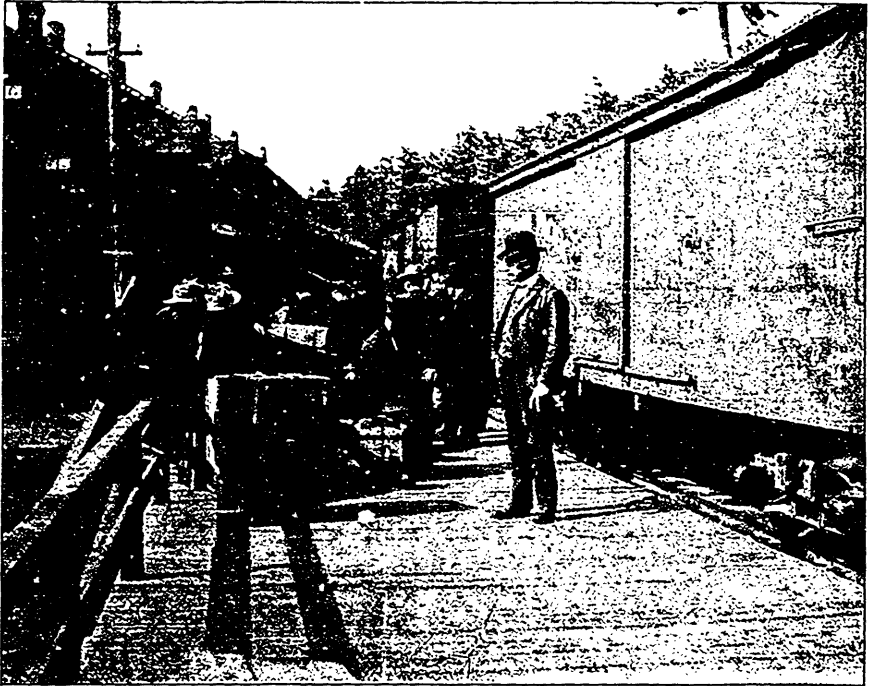
According to the New York Mail and Express, while "white maple" sugar was most commonly made in the olden time, sugar was also secured from the birch, ash, and box elder. The birch and ash sugars were dark colored and seemed bitter and had medicinal properties. The box elder yielded a beautiful white sugar, whose only

The Northwest School of Taxidermy of Omaha, Nebraska, teaches every branch of taxidermy. It is endorsed by sportsmen all over the United States, and it has had a good many Canadian pupils. Taxidermy is an art that, like music and painting, requires study, practice and some brains, but there is nothing to prevent any sportsman

from taking it up and succeeding, providing he will give his closest attention to the work and go to a good master. The Northwestern School of Taxidermy teaches by correspondence, and its success demonstrates the entire feasibility of the method.



WHEN THE SNOW LIES DEEP,
Falls in the Winnipeg River at the outlet of the Lake of the Woods.



TIMISKAMING STATION.

This scene will bring back lively recollections of pleasant days to many of our readers.

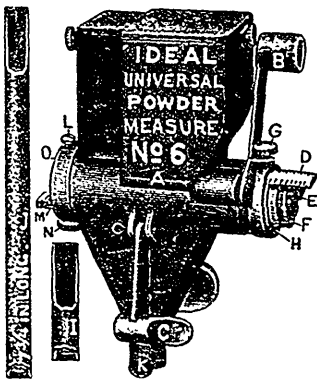
fault was there was never enough of it. We wish some of our correspondents would confirm these statements if they can, or if not, contradict them. Personally, we have never seen sugar made from anything but the rock maple, though we understand that some of our woodsmen have tried to make sugar from the birch without success.

Mr. J. C. Munro, the new Master of the Atherstone Hounds, forms the subject of the Portrait and Biographical Sketch in the December number of Baily's. Then we have an informing article on the successful sires of the past racing season, followed by a thoughtful and able essay on Riding to Hounds, over the familiar initials W.C.A. B. Golf is the field wherein readers of the magazine seek the "Twelve Best" this month. The editorial remarks on prominent exponents of the game indicate wide and discerning acquaintance with their merits and methods. Mr. Robert Maxwell, the amateur champion, ties with Mr. H.H. Hilton for first place and the ordeal of the ballot, it will be agreed, has produced a very just result. Mr. F. S. Corrance contributes a very pleasant glimpse of "Partridge Shooting at a Country House in the Fifties"; our only complaint is that there is not more of it.

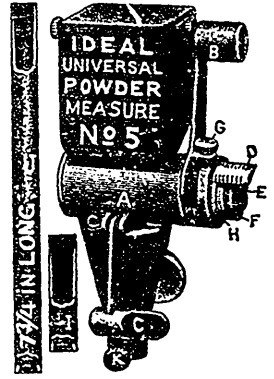
An unusual sight was seen near Montreal on November twenty-ninth. A flock of wild geese, probably between five and six

hundred birds alighted on the St. Lawrence a short distance above the bridge. The current at this point is rapid, and every few minutes the birds would drift down within about fifty feet or so of the structure, when they would take wing, fly up stream three or four hundred yards and then alight and repeat the performance. A large crowd of persons stood on the bridge, but the birds were not at all alarmed, apparently, until some hunters, with more ambition than dexterity, put out in a boat, when the birds left for good, flying southward. These geese appeared to be very tired, and had no doubt come a long distance, possibly from the lower St. Lawrence. The oldest inhabitant, a man close onto two hundred years of age, according to his own statement, does not remember to have ever seen so large a flock so near the city.

Mr. E. W. Rathbun, head of the Rathbun Company of Deseronto, died at that place on the 24th November. He had been unwell for a considerable time owing to heart weakness, but the end came quite suddenly. One of the leading lumbermen of Canada, who had built up a great business on which the existence of the whole town of Deseronto depended, he was a kindly and considerate employer and was respected as a man and considered as a friend by those who served under him. While his health permitted he took much interest in



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the forestry movement, being one of the members of the Forestry Commission appointed by the Ontario Government in 1897, the report of which is one of the best expositions of a sane and practical Canadian Forestry policy. He was a member of the first Board of Directors of the Canadian Forestry Association and always gave it cordial support. The Forestry Association and the forestry movement generally owe much to lumbermen like Mr. Rathbun, whose support is a sufficient answer to those who consider its aims impractical or visionary.



The crop of "nature writers" is a rank one. It would almost appear as though every professional writer, who is not seriously crippled in the arms, is holding a pencil in either hand and scribbling for dear life. The blunders they make, and the statements they foist upon an unsuspecting and long-suffering public—Ye gods! Even in the West, where men should know better, seeing that they are very near to the broad bosom of Mother Nature herself, they are writing some horrible rubbish. One ambitious scribe in describing the habitat of the beaver says:

"Perhaps the best known example of such preparation is that of the beavers, which first make a pond by damming a stream with trees, brush, stones and mud, and then, in the pond thus made erect starry huts, whose roofs are well above the water, and whose door-ways are well below it."

Of course, as every trapper knows, the beaver does nothing of the sort. Like a sensible beast he first builds his house, and then makes his dam, but, naturally, a nature writer could not be expected to know this.



The Biennial Report of the Commissioner of Fisheries and Game for Indiana; Mr. Z. T. Sweeney, has been received. Our American cousins leave us so far in the rear in the matter of getting out reports upon fish and game matters, that we should have had our pride humbled in the dust long ago. They have the men and the money, too, and although we have infinitely more game

we certainly do not sacrifice much time to making the most of it. An American writer will dwell with loving affection on such fish as the crappie. Commissioner Sweeney has turned in a very capital report, and we congratulate him most heartily upon it. The expenses and disbursements of the office of the Commissioner of Fish and Game for Indiana, during the two years comprehended in this report, amounted to \$15,212.27, to which should be added apparently, the salary of the Commissioner himself, whatever that may be. It seems to us that such an appropriation was a very wise one, and that the State of Indiana will reap a manifold return for the money it has spent through its Fish and Game Commissioner.



We are in receipt of the Annual Report of the Board of Regents of the Smithsonian Institution, for the year ending June, 1902. The most interesting article in it, from a purely Rod and Gun standpoint, is, perhaps, that on "Reindeer in Alaska," by Gilbert H. Grosvenor, though, of course, nearly all the papers in it would appeal to any educated man of scientific tastes. Mr. Grosvenor is the Editor of the National Geographic Magazine, and he was very well equipped to write this account of what Dr. Sheldon Jackson has been doing for the natives of Alaska. Dr. Jackson is the general agent of education in Alaska and has made annual visits to the territory since 1885. He saw that it was either a question of providing reindeer for the natives, or of allowing them to starve to death through the scarcity of game, and in the winter of 1891 he succeeded in inducing the benevolent to subscribe \$2000 toward importing deer into Alaska from Siberia. Success followed his efforts, and in '94 the United States government stepped in and has since contributed \$25,000 a year in aid of the undertaking.

The Smithsonian Institution is beyond all praise, and its reports should be more widely distributed than is the case, although the Exchange department of the Smithsonian now costs \$24,000 a year.



The following item appeared in a Montreal paper a few days ago: —

"The Comptroller of Mounted Police yesterday forwarded to Winnipeg three and one-half pounds of mail matter for the officers and men of the Hudson Bay expedition. The matter consists of letters from the men's wives, relatives, or friends. From Winnipeg the letters will be taken by a courier of the Hudson Bay Company and a dog team to Fort Churchill, on the south-westerly shore of Hudson Bay. The mail packet may not reach its destination until May next."

Those that have never travelled in the north by dog team and on snowshoe, cannot realize the vicissitude this little mail of three and a half pounds will undergo. There will be days of blinding blizzard; leagues of bad going, when the granulated snow affords no footing; nights of bitter frost, when the mercury is out of sight in the bulb of the thermometer, should there be one in the outfit, as is extremely improbable; and then, later on, the warm, slushy days when it is good to sleep, and the clear starlight nights when man and dog may step out merrily on the crust, until at length the three and a half pound mail packet—damp and soiled, but yet intact and safe—shall be handed by the Esquimaux mail-carrier to the leader of the expedition in his camp by the Arctic Ocean.

A new pass has been discovered through the Rockies. This of itself would hardly be worth mention, as there must be any number of passes in the Rockies that have never yet been trodden by a white foot. But this particular pass shortens the distance between Dawson City and the Mackenzie River by more than 300 miles. For generations the Hudson's Bay Company and others have been following the old trail by way of the Porcupine River, to reach which you have to descend the Yukon to the mouth of the Porcupine, follow that river up to its source, and cross over to the head waters of the Peel River, by following which the Mackenzie is eventually gained.

The new trail through the Zola Pass gives a direct route to Twelve-Mile River, which flows into the Yukon, just below Dawson. The Zola Pass leads to the Black-

stone River, which is a tributary of the Peel. Even the Indians profess to be unacquainted with this route. The two discoverers were N. W. Craigie and George Bull. They were hunters, and it was while following the wild sheep and caribou that they found their way through this pass. And how many other notable discoveries have not hunters made? The big game hunter, provided he is not a game butcher, deserves almost as much honor as the soldier.

The usual tinkering of the game laws has been proceeding merrily for several weeks. Our legislators are never too busy to amend the game laws. The following is said to be the text of the latest effort in the Northwest Territories:

The recent session of the Northwest Legislature passed a new game ordinance which makes the open seasons as follows:—Mountain sheep and goat, 1st Oct. to 15th Dec.; antelope, 1st Oct. to 15th Nov.; caribou, moose, elk, wapiti, deer, 1st Dec. to 15th Dec., in Eastern Assiniboia; caribou, moose, elk, wapiti, deer, 1st Nov. to 15th Dec., in other parts of the Northwest Territories. The shooting of females of the above is prohibited.

Ducks, 23rd Aug. to 5th May; cranes, 1st Aug. to 1st. Jan.; rails and coots, 23rd Aug. to 5th May; snipe, sandpiper, plover, curlew, 23rd Aug. to 5th May; grouse, partridge, prairie chicken, 15th Sept. to 15th Dec.; not more than twenty of the grouse family shall be killed in one day or two hundred in a year.

Mink, fisher, marten, 1st Nov. to 1st April; otter, 1st Nov. to 1st May; muskrat, 1st Nov. to 15th May; beaver is protected until 21st Dec., 1908.

The license for non-residents is \$25 for general and \$15.00 for birds; permits for guests may be had from the guardians on payment of \$1.00.

The above open seasons are fixed by the new ordinance for the protection of game and include the first date, but not the last mentioned.

Just in time for the opening of the season's sport, we have received a copy of

"Ski Running", by Messrs Somerville, Rickmers and Richards, printed by Horace Cox, Windsor House, Bream's Building, London, E.C. This book is sure to have a large sale in Canada, because we have just taken up ski running with enthusiasm, and, moreover, what we do not know about ski running would make a very thick book, even in agate type. The feet of our young men seem unaccustomed to the ski, as may be verified any Saturday afternoon upon the mountain back of Montreal. The ski is as far ahead of the Indian snowshoe for certain purposes as anything well could be, but skiing is an art, and one that does not come naturally to any of us. This book tells everything, apparently, that is worth knowing about skiing, and all our large sporting goods suppliers should have it on their counters. The authors deal, firstly, with the origin and history of the ski; then they tackle the elements of ski running, including the skiing outfit, how to stand, turning on the spot, walking without stick on the level, uphill, gliding down, how to stop and brake with the stick. Then, for those which are further advanced, there is a description of ski-jumping and the Telemark swing. There is perhaps one division of this chapter that will appear unnecessary to the average tyro, viz., that "on falling." Most beginners can fall successfully, if not gracefully, but they should derive comfort from what the authors have to say on this important branch of the past-time. "Be sure that you will fall, but let not the prospect trouble you greatly. In the Holmenkollen competition of 1902, when the snow was fast and good, there were two hundred and forty-four competitors, of whom forty per cent. fell, after leaping on an average of about seventy feet; there was not a single accident. In general the unsuccessful jumper hurtles through the air, alights, falls, and, with many somersaults, proceeds in a soft and cloudy pillow of snow to the bottom of the hill, where he picks himself up and shuffles off to try again." The price of this book is 2s. 6d.

A meeting of the Board of Directors of the Canadian Forestry Association was held at Ottawa recently for the purpose of

discussing the business of the Association generally and making preliminary arrangements for the annual meetings to be held at Toronto on the 10th and 11th March, 1904. The meeting, it is expected, will be one of the most interesting yet held. Papers will be given by prominent scientific men and lumbermen of the Dominion, and invitations will be sent to leading foresters of the United States. Full announcement will be made later when the programme is completed. In accordance with the suggestion of the Toronto representatives the evening entertainment will probably take the form of a public banquet. In view of the slow process of reaching the whole Dominion by itinerating the Annual Meeting it was decided that it would be advisable to hold a series of meetings in the different provinces, commencing in the Maritime Provinces. These will be arranged for as soon as possible.

The Treasurer reported that the Ontario Government had granted the sum of \$300 to the Association and the British Columbia Government the sum of \$200. A resolution of thanks was passed and the Secretary instructed to transmit a copy to each of the Governments. In view of the improved financial condition it was thought that the question of starting a forestry journal specially representing the Association might be considered, but it was finally decided to take no final action, but to refer the matter to the annual meeting. A proposal to have small tracts or pamphlets issued both in English and French for wide distribution was mentioned and favorably considered, but will not be undertaken until the financial and other conditions are such as to give the venture assurance of success.

It was with much regret that we learnt that Arthur Corbin Gould, the founder and Editor of *The Rifle and Shooting and Fishing*, was dead. Mr. Gould died on the evening of December 15th in New York, of an affection of the heart. The deceased was one of the greatest authorities upon the rifle and revolver that the United States has produced, and in addition to knowing the theoretical side of his specialty, he was a very good shot, and during his long residence in Boston, before Shoot-

ing and Fishing was moved to New York, he was one of the most regular attendants at the Walnut Hill Range. Mr. Gould's name is associated with a pistol manufactured by the Stevens Arms Company, and with a special hollow point bullet for use in .45 caliber rifles. He was the author of two works that have had a large sale; one upon rifle shooting and the other upon the revolver. No one was more universally respected or esteemed, among the sportsmen and sporting goods manufacturers of the United States than the late Mr. Gould.

According to the Union Advocate of Newcastle, N. B., big game shooters have been doing very well in the Cain's River region. Game now appears to have increased enormously in New Brunswick, owing to protection. Some years ago the writer knew that district thoroughly, and the amount of game then in existence was not remarkably large; what the intelligent New Brunswickers have done through protection, the Ontario, Quebec, Manitobian and other intelligent electors can do if they try real hard. Game protection is after all not such a difficult problem. Just protect the females during the breeding season, keep down their natural foes as much as possible, spare the females and young, and limit the bag of male animals to a reasonable size—and there you have it.

One of our subscribers in renewing his subscription says: "If not presuming, I might suggest raising the rate of subscription to your paper. An individual posing as a sportsman in my opinion is a poor sportsman who cannot afford to pay a couple of dollars for a paper of this nature." After this we shall be prepared to accept a couple of dollars, or more, from any sportsman who feels that Rod and Gun in Canada is worth that amount to him, but nevertheless we shall continue to do business at the same old stand, as well as at various news stands, at the same old price.

The manufacturers continue to shorten the barrels of high velocity rifles, until we already find that a 24-inch barrel is a comparatively long one. It is said upon good

authority, that the Austrian Arms Company, of Steyr, Austria, is now manufacturing a new style of rifle, of which the following is an accurate description:—

"It is like most of the high power foreign repeaters, a bolt gun, caliber 6½ mm., being intended for game such as deer and chamois. The magazine is of a new design, being of cylindrical form, rotating on an axis, and gives the arm a neat appearance. This magazine system is said to be the most perfect and surest in action, with less chances of getting out of order, than any yet employed in bolt action rifles, even surpassing the simple Mauser magazine now so popular with military authorities. It is loaded with a clip, similar to the Mauser, holding five rimless cartridges, which are pushed into the magazine by the thumb. The rifle can also be used as a single loader by simply placing the cartridge on the carrier and pressing into magazine. The arm has an ingenious device for unloading a filled magazine. By simply pressing a button, placed on the side of the bolt in the receiver, and turning the rifle so that the sights are on the under side, all the cartridges will fall into the hand when held over the receiver. The standard barrel is seventeen inches long and the muzzle velocity obtained about 2400 feet per second. The rifle with seventeen inch barrel weighs about 6 1-5 pounds. It is also furnished with twenty-two-inch barrel if desired, slightly increasing the weight. It is furnished with set trigger and swivels for strap, and made with round barrel only. The butt of stock is hollowed out so as to hold a jointed cleaning rod and the necessary cleaning materials."

His Excellency, Lord Minto, and Mr. Arthur Gates, returned recently from a hunting trip to the Mattawa district. They were successful, each one securing a good moose head.

We have received a very neat little desk calendar from the Marlin Firearms Co. Any of our readers sending stamps for postage to the Marlin Firearms Company, New Haven, Connecticut, U.S.A., will be furnished with one of these.

The following is the text of the proposed amendments to the British Columbian game laws:—

No person shall, save for the personal consumption of himself and the members of his family residing with him, buy, and no person or corporation shall buy, sell, offer or expose for sale, or have in his possession for sale, or supply, or deal in, or keep for any of such purposes in cold storage or warehouse, or otherwise store, game without first taking out an annual license effective from the 1st day of January of each year, and, on payment of a fee of \$25, may be issued by any government agent or by the superintendent of provincial police. Such license shall be a personal license to the applicant and in no way transferable, and in the case of a corporation, it shall be necessary for each director of the same for the time being, and in the case of a partnership firm for each member of such firm to apply for and take such license. The license aforesaid shall be issued with and under the following conditions and restrictions to be endorsed on the same, viz:—

(a.) No license dealer shall purchase game save from a person licensed under this section to deal in game.

(b.) An entry of each purchase and sale shall be made in a manner required by section — hereof.

(c.) The license to be revokable by the Lieut.-Governor in council at any time, and to be cancelled upon any conviction of the holder of an offence against the provisions of this act.

(d.) The game covered by the license shall be lawfully killed and dealt with.

The license under this section may at any time be revoked by the Lieut.-Governor in council.

(a.) Upon recommendation of the superintendent of provincial police stating that he reasonably suspects the holder has been persistently guilty of infractions of the provisions of this act.

Game found upon the premises or under the control of any club manager, hotel-keeper, fish dealer, butcher, or any licensed game dealer, shall be deemed to be "exposed for sale," and "in possession for sale" without further proof.

Any person knowingly permitting premis-

es to be used for storage of game in aid of or for any persons carrying on the trades before in this section enumerated, or otherwise than under the provisions of this act, shall be liable upon conviction to a penalty of not less than \$50, or more than \$250, for each day or portion of a day on which the offence charged shall be proved to have been committed.



According to a correspondent of the Ashcroft Journal, of no country can it be said that its possibilities are greater than the northern interior of British Columbia.

"That the Northern Interior is rich in minerals we have plenty of evidence," says the writer, "and to the evidence familiar to us of prospectors who have been through the last few years, we can now add that of Mr. G. M. Gething, a resident of Slocan city, who returned from spending the summer prospecting in this section.

"Mr. Gething left Ashcroft in May last, accompanied by several others, prospectors like himself, on a trip of discovery for minerals. The Findley and Peace rivers were the objective points but this did not prevent them from taking many side trips to other places. Four of the party will stay through the winter. Next spring M. Gething will return and continue prospecting.

"Of the maps of that part of the Province he says they are all misleading and of no practical value. They give only an idea of the country. For instance, the Parsnip is shown as much larger river than the Findlay and as the chief feeder of the Peace river. The reverse is the correct position of these rivers. Other rivers and lakes were found whose position on the maps are as incorrectly given as the instance cited. He visited Fort Graham, the Hudson Bay Co.'s northerly post and from there struck into the Rocky Mountains north and east to examine copper, indications of which he had been advised. The Oslinca, Omineca, Findlay, Peace and surrounding rivers and country were all travelled by the party, thus giving them a general knowledge of the vast country that can in no other way be obtained. Mr. Gething knows something of the advan-

tages which the Peace river and Pine river passes.

"A number of coal locations have been made by this party, and although averse to talking much of their prospects, Mr. Gething said the country was good and there was plenty of room for all to prospect in a thoroughly mineralized district. Nothing can be accomplished beyond the merest prospecting until there is railway communication, as the cost of supplies there is prohibitive. Not only that, but at times impossible to get. Fancy having to order food supplies one year and sometimes eighteen months ahead. This is the situation today anyone will find himself in that attempts to live in the northern interior of British Columbia."

Is not the District of Sulzburg in Germany the land of promise, flowing not with milk and honey, but with forest wealth. Listen to this description of it:— The average net revenue derived from this district for the last five years is nearly \$8 an acre. In Sulzburg itself each adult male inhabitant and each widow receives yearly \$17 of revenue from the forest, which, as a rule, overbalances their local taxes. In addition, the town has been lighted with acetylene gas, has built a court house, has put in waterworks, and subsidized a local railway. These special expenditures altogether amount to about \$65,000, and the forest is expected to pay for them in ten years. In all there are thirteen villages and about 8,000 people interested in these 5000 acres of forest.

"We have no waste lands; our state is all good agricultural land, and there is neither need nor room for reforestation," said the governor of one of the Lake States a few years ago. "We have no waste lands in our town or country," say the officials of a county which, in spite of thirty years settlement, is poorer now than it ever was, and has today scarce one per cent. of improved land, more than ninety per cent. of its land not even in the hands of settlers and much of it abandoned for taxes. That the county people should for a moment admit that some of these lands are non-agricultural or forest lands is too

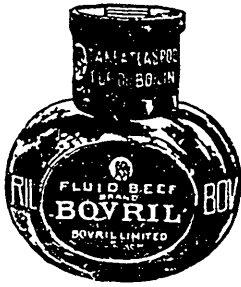
much to expect. The editor feels that he must make it clear that every acre of land is suited to settlement and the building of prosperous homes. "These lands are valuable; our expert informs me that they are worth \$100 per acre, and it is sheer folly to reserve them for reforestation," says the land speculator, who bought large areas at less than fifty cents an acre, and who wheedled for a rebate of taxes because his holdings were assessed at not to exceed one dollar per acre. Speculators get options on these lands, buy them for a trifle, and then demand that the state shall deal with its own property as they prescribe, and sell lands for a mere song. They persuade thrifty laborers in the cities, men without knowledge and experience of farming, into the exchange of the city home for eighty acres of sands. In this way they bring ruin to hundreds of families and replace prosperity by pauperism. Yet these men try to persuade us that they are acting as agents of civilization and development. The value of their testimony as to the waste of lands of our States should not be considered too seriously. If we go among the people of these land districts we soon learn the real truth of the matter. "That is one of the poor sand farmers' is the phrase in town when a man comes in with a poor horse, dilapidated harness and wagon, and a general air of wretchedness."

This is a description of a certain district in the United States. Do such things occur in Canada?

The annual tournament of the Hamilton Gun Club will be held on January 12th, 13th, 14th and 15th. The tournament committee intends to make this meet the best in the club's history.

"A Saskatchewan exchange says: Ben, Neal and John Robinson of Tisdale trapped a timber wolf on Tuesday. It weighed 200 pounds and measured nine feet from the nose to tip of tail, and had teeth five inches long. It was a monster and was the first timber wolf ever seen in the Tisdale settlement."

(This is another instance of animal growing after death.—Ed.)



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Communications on all topics pertaining to fishing, shooting, canoeing, the kennel and amateur photography, will be welcomed and published, if suitable. All communications must be accompanied by the name of the writer, not necessarily for publication, however.

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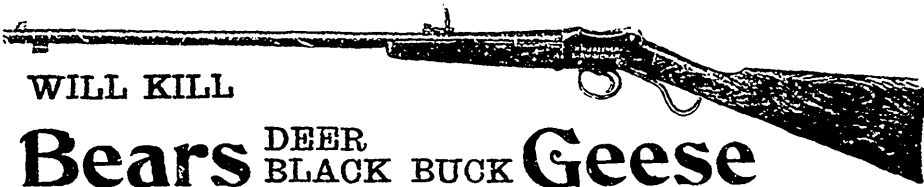
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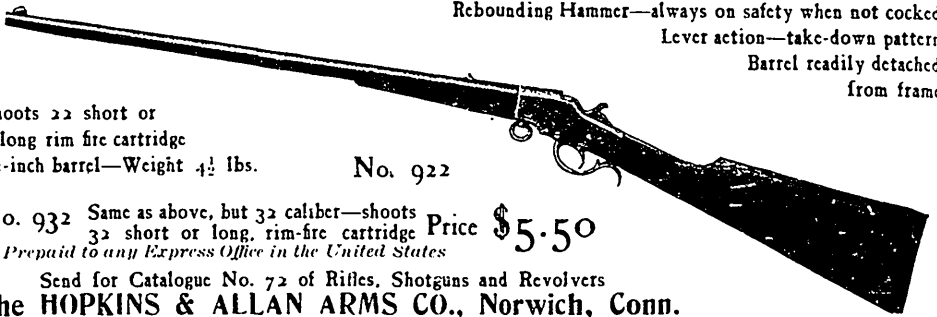
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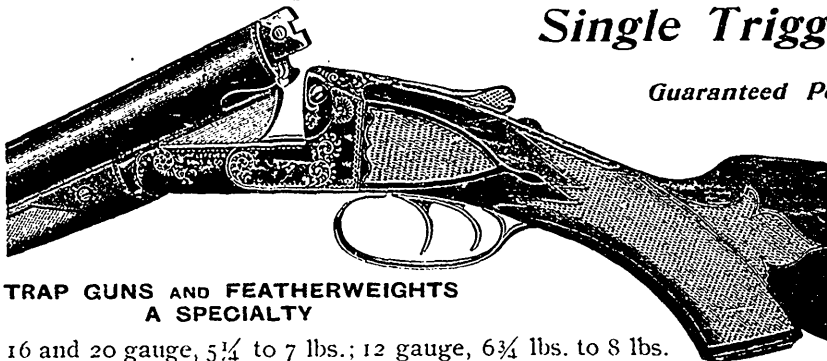
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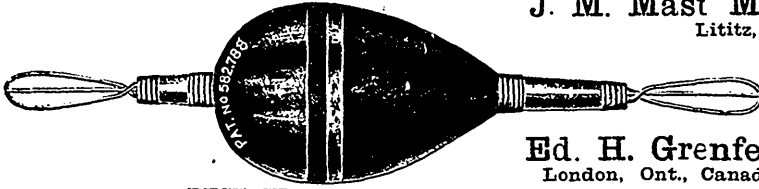
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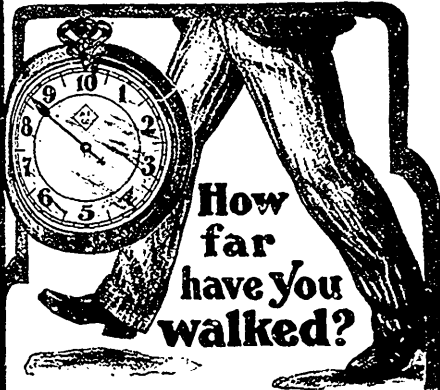
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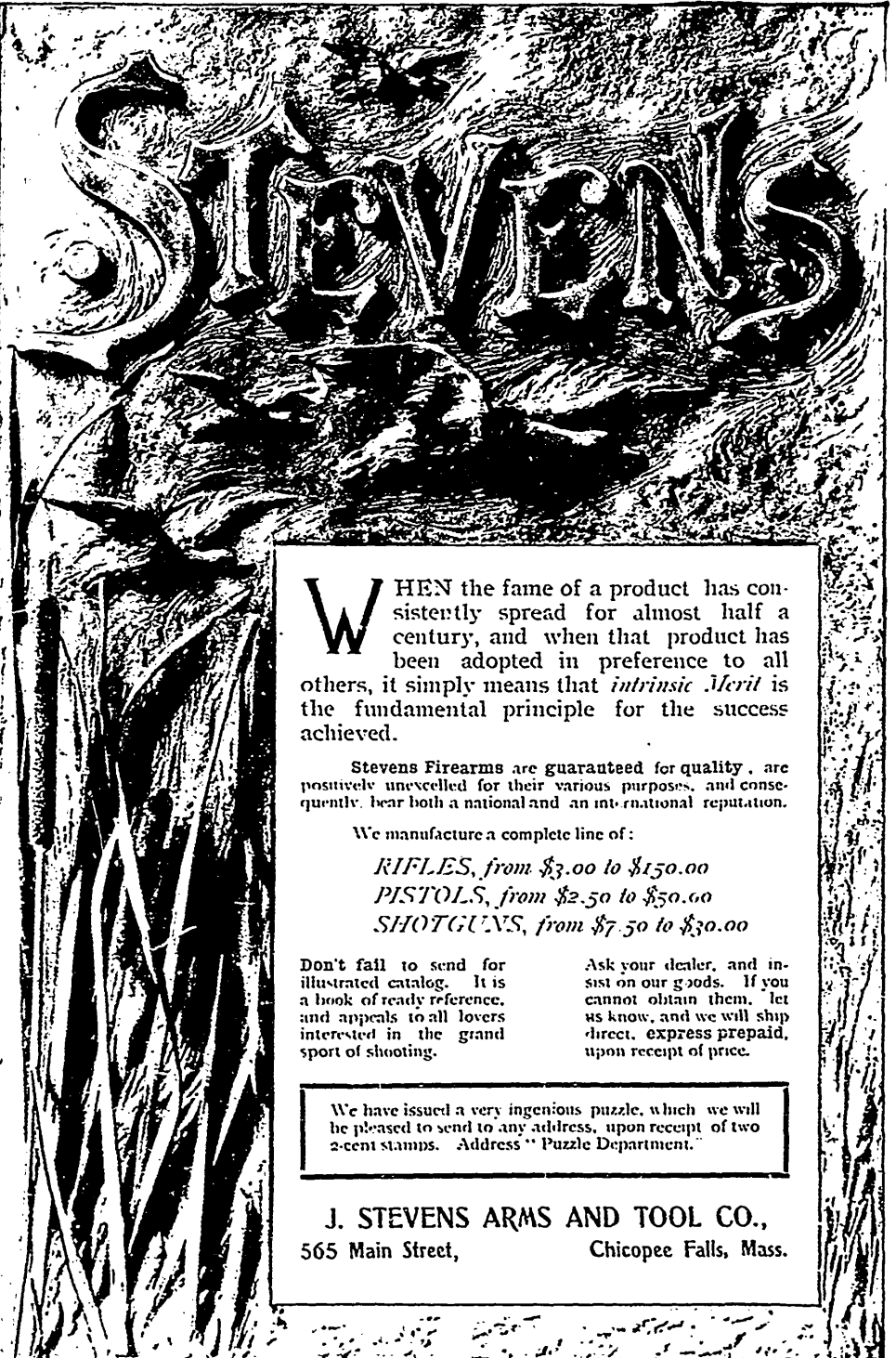
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