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A MAGAZINE OF CANADIAN SPORT

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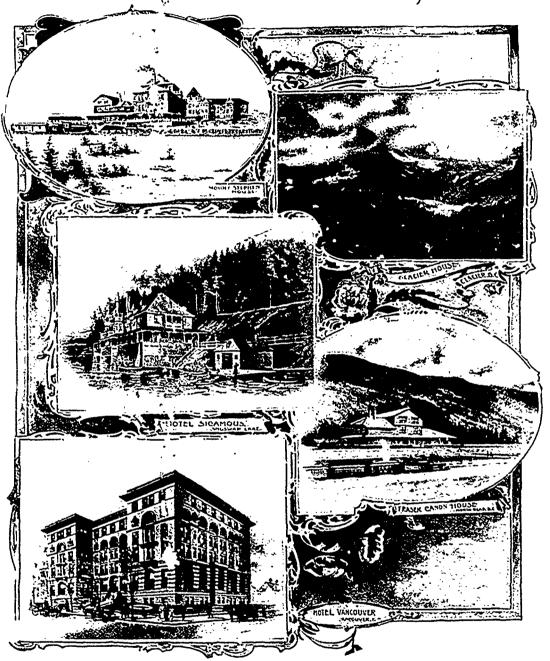
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MONTREAL AND TORONTO, JULY, 1904

No. 2

Down The Mississaga.

By L. O. ARMSTRONG.

In that most enjoyable canoe trip which I took down the Mississaga River last autumn I felt there was a want of variety in the fishing unless one left the main river and travelled east or west. I heard then from the Indians of a large number of good fishing lakes and streams, but had no time to spend in exploration. I promised myself however, that I would make a return trip in the spring, when the call of the wild always comes upon me with irresistible force. and that I would locate some of these waters. Accordingly as soon as the snow had gone this spring I wrote to my old friend, John Dyke, at the Hudson's Bay post, at tid mouth of the Mississaga River. I wanted to get some of the Indians who trade with him to act as guides. But John Dyke told me that the water was too high and that I could not get up the Mississaga irom the southern point of departure. I wished to go southwest from Timber berth No. 195 on the Ontario Government's map of the north shore of Lake Huron, through a chain of lakes by which I could reach Desbarats, twenty-eight miles east of Sault Ste. Marie, on the Canadian Pacific Railway. No one that I knew had ever been through this route, but I had read reports of explorers and talked with Indians about these lakes, and they told me that they were their best fishing grounds. I did not wish to fly in the face of Providence, in

the shape of John Dyke, and therefore, instead of commencing my fourney at the beginning, I started at the end.

I asked a friend at Desbarats if he knew of a good guide he could recommend for this particular country. "Cariboo Jack is your man" replied my friend. The name was promising, and I got a line on to Cariboo Jack. I had in my mind two other young fellows to whom I meant to give a chance to develop into guides of a trustworthy kind. One was Roddy McBonald, jr., and John Reid, a young Englishman, who has adapted himself well to the life of a new country, was the second. I knew both of them to be possessed with an instinctive love of the woods, to be sportsmen in spirit, and, as the sequel demonstrated, the very material out of which good guides are made. There was a heavy trip in front of us, without even a canoe trail on the portages. But great as our difficulties were at times our guides proved fully equal to all emergencies. very cheerfully and confidently recommend them. Cariboo Jack was paid at the rate of \$2.50 and the others \$1.50 each per day. They proved themselves fairly capable and willing workers and in portaging they will soon improve. We predict a future for them as guides. Cariboo Jack is all right now, and their love of the work . and their ready adaptability show the other two to be good raw material.

We got our canoes at the Hiawatha Camp .

Hotel and outfitted satisfactorily at Bennett's. The start was made from Desbarats, and we travelled in a north easterly direction, thinking that possibly we could make our way through to the Mississaga; we knew that if we could not go all the way, we could go a good portion of 't and that we could do the rest by starting at the Mississaga and travelling south-westerly, thus reaching the point on that trip where we left off on this. Desbarats is a good starting point and a better leaving off point because it is at the bottom of a long descent from the main line of the Canadian Pacific Railway, and owing to its excellent railway and water facilities. The celebrated Indian play of Hiawatha is annually given here and guides can be procured by writing in advance to the Hiawatha Camp Hotel, Desbarats, Ont. guides will be scarce this year because of the great demand for them, and hence the necessity for securing them in advance. The virgin country north of Desharats gives good fishing and shooting, and as this is becoming known the demand for guides increases, while the supply is small as yet.

ITINERARY.

That is a very pretty little river between Desbarats station and Desbarats Lake. There is only one slightly dangerous stone at a sharp bend of the river. There are two or three clearings which is about as much as there ever will be, the amount of good land being limited and most of the country is destined to remain wild. Game will increase, because lumbering is over or nearly so. Find out if anything is forgotten by dining at the Rapids, where you can procure milk, bread, etc., and if you find that anything has been overlooked it is easy to repair the deficiency by sending back to Descarats, one mile and a quarter, on foot, and nearly two miles by canoe.

An Indian Love Story.

The first portage from Desbarats is at the Rapids, called by the Indians the Red Rose Maiden Falls. There is a pretty legal told concerning these falls, which is as follows:—In the days of old before the white men came upon the scene, this was at one time the fighting ground of the Ojib-

ways and the Iroquois. Northeast, about two hundred miles away, the Ojibway Algonquins held sway. They were of the same family but not as plucky fighters as the members of the parent stock of the Ojibways. But, despite all the fighting and the stoicism, love, as it has done all through the world's history, held its own. An Ojihway maiden, like many of her white sisters, had two lovers, rivals for her hand. One lived in the same village, and the other was an Algonquin, who made periodical visits to his Ojibway cousins at their summer home in Desharats. He was a sorcerer of some repute, but not loved by his fellows. The maiden's father, tempted by the large dower gifts promised by the Algonquin lover, used his influence, no slight one, with the Indians, on his behalf. But the Ojibway maiden herself favored her Ojibway lover, and stolen interviews round Desbarats Lake, and chance pilgrimages to the caves, near which good canoe bark was found, (and from whence according to the Indian belief, came the great flood that covered the earth) rendered the courtship the sweeter. One day they met at the Rapids, and here the lover told the girl of his resolve to go on a long hunt to the north. He would capture black foxes, silver greys, and procure so many other valuable furs that he would be enabled to offer as rich a dot as his rival. high hopes and anticipations, the lovers parted, after making an engagement meet at the same place in the following spring, when the Ojibway hoped to be able to lay at the feet of the father of his netrothed all the spoils of the chase. No sooner had the lovers parted than the sorcerer appeared. The pangs of jealousy had been stirred within him by what he had heard of the late interview, and he pressed his suit with more ardor than ever. the maiden, also inspired by the feelings aroused by the parting with her lover, spurned him with such emphasis that he grew revengeful, threatened to betray her lover to his enemies, and vowed that her acceptance of him (the Algonquin sorcerer) could alone save the Ojibway. The spirited Indian maiden retorted that he might be cowardly enough to try to carry out his threats, but he would not succeed, and that she would tell her father what was the kind of man he favored for a son-inlaw. This so angered the Algonquin that, exerting his power as a sorcerer, he turned her into a wild red rose tree. and vain were the searches made by the members of the tribe for the missing girl, and at length it was believed that she had been captured by the Iroquois. The Algonquin carried out his threats, and by means of his information the Ojibway was captured by the Iroquois and carried southward towards the great lakes. Famed as a warrior he was bound and led away a prisoner in order that he might afford entertainment upon the return of the band to the squaws in the Iroquois village at their torture feast. But towards the spring the Olipway made his escape and tirelessly travelled to the northwest to keep his appointment with his beloved. He reached the place in time, but no one appeared to welcome him. He waited, first hopefully, then wearily, and finally made up his mind face the worst and to find out what had happened. He was about to take his departure when his feet were arrested by the music of the Falls, which appeared to him to merge in the distinct and urgent utterance of "Cut the tree, cut the tree, cut the tree." So insistent was the voice that he could hear nothing else and with his hatchet he soon felled some pines near by. Nothing happened, except that the voice appeared more insistent and urgent than ever, and glancing round his quick eye fell on some wild rose bushes. Cutting one of them, to his delighted astonishment his true love appeared before him, and very soon the two were made acquainted with the adventures of each other. On their return to the village they were heartily welcomed, and upon the treachery of the Algonquin being made known. Indian vengeance, remarkable for its swiftness and completeness, fell upon him and the re-united lovers, as in all right ending legends, lived happy ever afterwards. This tale, told round the camp fire with Indian eloquence and local color, is most impressive.

Now a days the Rapids are famous as the spawning grounds of the mascalonge, dore, bass, and the universal sucker. So numerous are the fish that they can be caught with the hands, and our attempt to follow the local custom was, as the illus-

tration shows, quite successful. A New York editor, who was one of the party, was quite excited to find that within a mile of the railway station fish can really be caught in this way. Those who are doubting Thomases about bears fishing with their paws would have all doubts removed by fishing here themselves with the same tackle.

At the Rapids we were entertained at dinner by an English journalist, who is trying farming on a new bush farm. From a round rock just above the Rapids there is a pretty winding view. The vista looking towards Desbarats Lake is one not to be soon forgotten, as probably many readers will agree who note this view, page 63 Our English journalist friend bade us adieu here, and we waved hats and paddles in return.

Desbarats is a bass lake and fifteen minutes sharp walk from Desbarats station brings us to its shores. It is the first in the chain of lakes we were to follow. A paddle of about three miles from the Rapids brought us to the landing on the north shore of Lake Desbarats as depicted in the next view.

A Curious Couple.

On the trail from Desbarats to Diamond Lake we came across a couple of woodcutters, whom we dubbed Lonely Bill Profanity Jem. We were hospitably entertained at their camp. Bill has one of our lanterns and we have a tin cup belonging to him; these camping mistakes, which will be rectified next time we meet. Jem has the most decorative and sensational style of conversation, with which to tertain visitors that it has been our to enjoy. He spun us many yarns round the camp fire and notwithstanding his many expletives some of them might have been doubted had he not been such a genuine son of the timber. He told us of a deer which came to him at the sound of the axe, and for whom he kept dainty bits. As a matter of fact tamed wild rabbits and squirrels played round us and about our feet all the time we were there. partridge and deer and plenty of moose tracks. Jem told us how to capture a "Clear your voice like -- and fawn.

howl murder like —. You scare the fawn out of its — seven wits, so that you can walk up to it and eatch it." Jem had a bear once, he told us, that was quiet, but a good fighter. If you held a crying child in your arms it would "show its ivory and perhaps go for you." But if you dropped the child or stepped its crying, old Jerry became a perfectly gentle bear. Jem and Bill are worth visiting, and their camp is on the road to the caves. From their camp these gentlemen put us on the wrong trail to Diamond Lake.

Magnificent views are obtained from the mouths of the caves. Nothing but a long focus lens and an eight by ten plate was of any use to picture this view. It would have been more extensive had we brought the heavy camera up to the top of the .ill, but this would have delayed us.

at the foot of the bluff we turned and made a near view of the entrance to the two caves. One of these caves is very deep and well worth exploring. This is a bear, deer and moose country. It is quite uninhabited for many square miles, and with the fair amount of protection the big game is getting today it is likely to improve.

New Lakes.

In Bocage Lake, less than half a mile aeross we found pickerel. There may be other fish, but they did not come to our lures. We crossed the lake in a northeasterly direction to arrive at the northern landing.

From this point we cut a new trail.

A quarter of a mile through beautiful hard wood, full of deer and moose tracks, and signs of other big game, brought us on a north-easterly course to Grey Duck Lake-a small lake without an island which there is pike if nothing else. We paddle across this small lake, whence it took another short half-mile walk to bring us into Diamond Lake, famous amongst the Indians for its bass in summer and its lake trout at all times of the year. The narrows in Diamond Lake gave us a pretty view. It isn't too easy a portage between Desbarats and Diamond Lakes, nor is it very heautiful and interesting, because of the caves, but if you wish, a pretty good nine mile drive from Desharats brings you

up to Diamond Lake if you do not wish to paddle and portage. We had a pretty paddle on this water, and then from Diamond Lake we took a wagon road of three miles to Lonely Lake. We put our heaviest canoe on a farmer's wagon, and carrying the other, did the three miles comfortably. A trail can be cut much shorter than that, but it isn't a bad idea to take a wagon, put all the plunder in it and be ready to start fresh at the end. If you are hiring guides it is not more expensive. By changing the canoe carriers occasionally or resting one does not mind the portage much. The boy who drove us thought the journey was worth a dollar for his double team. As the roads were bad at this early spring time we paid him a little more—a dollar and a half, which is a fair price at any time and with any load.

At Watson's log house on Lonely Lake we got supplies—good milk, excellent potatoes, and a great deal of information about the northern country. When we came back to Watson's it was in a snowstorm, and we thought it a palace. Watson is the stalwart standing at the horses' heads in the picture. He told us there was a very good brook trout about a mile from his house and a good road to it. Good roads in this northern country depend upon the point of view.

Lonely Lake, two or three miles long and a couple of miles wide is famous for its trout, which have pretty well mastered all other species. It is a pretty lake and a delightful paddle to the landing. From Lonely Lake northward to Iron Lake there is a portage of one hundred and fifty yards and this is an easy one. Iron Lake is a spider-like lake, famous for its lake trout and its bass. It is a splendid large fishing ground. We have rarely tasted better rish than the lakers we caught here. Our after breakfast smoke on the shores of Iron Lake is the subject of one illustration. Fronticepiece. We got some very good salmon trout fishing here—and some of the pink and some of the white flesh variety. We were early for bass and we were very anxious to educate our guides up to a strict observance of the game and fishery laws.

When you think you have reached the northern end of Iron Lake, a diligent

search finds a very small opening indeed into what is really a part of it, but which might well be called a separate lake. There was an unoccupied lumber camp here. We portaged from this into what appeared to be ideal brook trout lakes. found that these too were connected with Iron Lake, and that the lake trout and bass had driven away all their smaller brethren. We lost time here. We should have gone to the north-eastern branch of Iron Lake, portaged into S Lake. and thence into Haversack Lake. Another carry would have brought us to Coffee Creek and Bass Lake, which are about half way to the Mississaga. Lost time compelled us most regretfully to postpone this part of the trip.

This is a brief account of our four days' itinerary. We had to search and cut out our own road. Our method of working proved highly effective and might well be copied by others in a like situation. Two men carried the canoes, one man went ahead to cut the brush, and another followed to thoroughly-blaze the path for those who might come after as well as for our own return journey. As a matter of fact, we came back light in five hours over the same route it took us nearly four days to traverse on the outward journey. We loaded one canoe and all our stuff on a team at Watson's, using our canoe for four men on the return journey, which was down stream.

We were richly rewarded for all our work by verifying the Indian reports we had heard of good fishing lakes. We now know of three new excellent brook trout lakes and of five very good bass and lake trout lakes, one lake deserving more than ordinary recommendation, even in this virgin country. There is mascalonge in Desbarats Lake and also just west of Desbarats in Lake Huron.

Our trip, while much shorter than we wanted to make it, was a success. We found a practicable route which has never been travelled either by white men or Indians. This means good fishing and shooting. The average Indian is lazy and will follow the easy routes. He will net for fish, kill game out of season and somewhat spoil the fishing and shooting, and there are many white men who are worse; there-

for keep off the beaten routes. The receipt of news by special messenger had much to do with our party turning back so soon; but for the next issue of Rod and Gun I hope to give fuller notes of the journey, showing how the canocist can leave the Mississaga River and go through the chain of lakes to Desbarats station. He will find an absolute contrast to what he has enjoyed on the Mississaga, a much greater variety of fishing with less swift water and a little more portaging and work. The latter, however, is through lovely primeval forest and comes when the canocist is used to his work. We can strongly and heartily recommend this section of the country both to the hunter and the fisherman. In doing the Mississaga trip on no account attempt to go up these streams. Start at Winnebago Siding and come out at Desbarats or Dayton via Waquekobing. From Desbarats many delightful short canoe trips can be taken-trips of from one day to a fortnight. But the Mississaga, Thessalon headwaters and Desparats Lake canoe trips need to be made from north to south. There are no maps of this country, because it is as vet unexplored. I shall be glad to send the canoe route maps I have made to any brother sportsman. These maps are being continually improved upon, but are as yet very far from being perfect.

At the Canadian Pacific Railway station of Desbarats, Ontario, there is a good country hotel, one at whose fare no fisherman can kick, and where they are being educated up to the wants of ladies, so that a canoe trip can be made from that point with ease and comfort.

The journey south or southwest for at least the lower half is much easier than the journey northward, as the fall of the waters is rapid towards Lake Huron. From Lonely Lake, if one is in a hurry, one can drive with duffle into Desbarats, in two or three hours and allow the guides to bring the canoes by water.

Rules for Canocists.

There are a few general rules of conduct which it is well to remember on a canoe true:—

First-Don't eat too much. The open air-

exercise gives an office man an extraordinary appetite, and tempts him very much to eat more than is good for him. It is just as good in the woods to rise from the table a little hungry as it is in the city.

Second—Don't drink too much. This is even more important than the last. I am not referring to liquors at all, but to the cool spring waters one meets. It is well to beware of drinking too much of these heverages.

Third.—Don't smoke too much. The man who is on a canoe trip has at times to make many and long portages, and should wait for his smoke until he is seated round the camp fire at night. To he always smoking interferes with work and wind very seriously indeed. It often means that the ten or fifteen minutes rest which should he allowed after every meal is prolonged into half an hour or an hour.

Fourth—Don't carry unnecessary baggage. Only such baggage should be taken as, together with the canoes, can be carried across the portages in one trip, when there are no ladies if time is limited. When two trips have to be made on portages nearly half as much time again must be allowed for the whole trip. This increase will be less when the portages are few and short; it will be more when the portages are long and heavy.

Fifth.—Do all you can all the time, and do it willingly. When every member of the party is actuated by this spirit it adds much to the enjoyment and comfort of the trip.

Sixth.—When you get wet remember that exercise is the proper way to get warm and not the fire or whiskey, although both may be enjoyed at the proper time and ... the proper place Exercise keeps your feet warm and your head cool and when in this condition, if you do not argue with the Irishman in camp, you will be amazingly happy.

Seventh.—When you are looking for lakes find the depression first and the blue haze afterwards. If it is early in the morning you will almost invariably find a little mist over the lake. The water is generally warm in the morning and this causes the mist. This has specially reference to the opening up of new canoe routes.

Eighth.-Make a good bed. When you

think you have enough houghs cut for the bed, cut as many more and the sound sleep that will result will make you infinitely more fit for the hard work of the journey, than if you had succumbed to your indolence and been content with less houghs.

Table of Distances.

Desharats village by river to Desharats Rapids, two miles (short.)

Desbarats Rapids to north shore and portage on Desharats Lake, course northwesterly, three miles.

Desbarats Lake to Bocage Lake, one mile, short.

Across Bocage Lake, course northeasterly, half a mile.

From Bocage Lake to caves (side trip). half a mile.

From Bocage Lake to Grey Duck Lake, quarter mile,

Across Grey Duck Lake, quarter mile, (short.)

Grey Duck Lake to Diamond Lake, quarter mile.

From northwest portage on Diamond Lake, to southeast landing at McLean's, about three miles.

From McLean's, on Diamond Lake, to Watson's on Lonely Lake, by wagon road, three miles, good road.

From Watson's on Lonely Lake to Iron Lake portage, two miles.

Portage from Lonely Lake to Iron Lake, 150 yards (short).

From portage (Iren Lake) westerly to the northwest arm of Iron Lake; about two and a half miles.

The other distances we will give as soon as they are verified.

It is a very pleasant little trip from Desharats to Iron Lake with a great deal of good fishing. From the e. lended trip to the Mississaga I am not sure but that we can get a shorter trail from S. Lake to Bass Lake than the one that is recommended to me and therefore I will not put in the route from there to the Mississaga until my next.

A Word of Caution.

Are we Anglo-Saxons degenerating? Is the Englishman, the American, and the Canadian less hardy than his forefathers? We fear the question must be answered in the affirmative. When we read of the marching and of the fighting that the Japs are doing, we wonder whether we would be fit antagonists for them. If there is any doubt about it let us make ourselves fit. Is there any better way than by canoeing portaging, and camping, with their infinite varieties of exercise? Let us make them national pastimes. Let every North American at least get some of it once a year and in the day of trouble, in the time of war, which must surely come sometime, our

people will be better prepared for it, and better able to face the inevitable hardships than if we allowed ourselves to become chronically and helplessly soft and luxurious. There is a message here to the middle aged and older man who generally gives up outdoor life and exercise just about the time he needs it most. He can come almost any distance in the far north without excessive fatigue, and with quite as much comfort as is good for him. I know of no experience or treatment that does as much good in as little time.

The Mash-kenojie.

By C. C. FASK

I have to apologize for not having responded to the request for information regarding the distinction between a pike and a masselonge, a request that was made in an issue of some months back.

I am a crank on this subject, for I do not believe that there is any difference between a pike and a maskelonge. Unless it be, that a maskelonge is an overgrown pike, and knowing that a bare assertion of the kind will carry no weight, I am prepared to prove my point, if not biologically, or rather piscatorially, at least philogically.

I have, occasionally, asked enthusiastic fishermen, who know the whole thing, to define the difference between the maskalonge and the pike, and have been consequently called down for ignorance, for, as every man old me, anybody should know that; you can tell by the color of the scales, said one, and another would aver that the whole thing depended on the size, probably implying thereby that the maskalonge was born big. I have heard others declare that the whole question could be decided by the length of the lower jaw, and others would compromise by asserting that it was merely a question of locality, and that if I had only seen the fish caught out of lakes or streams that I had never visited. I would then easily be able to distingast, actween these two distinct species, which organient would make me feel rather

small, for I have never been much of a rolling stone, and I would incontinently bow down low to such a globe - trotting autocrat.

I heard so many different theories promulgated, that I determined to go to what: I thought was likely to be the fountain head of information on the subject, namely the Indian, and lo, I received a revelation from Lo that afforded me food for reflection. The Indian told me that he had learnt of the existence of the maskalonge from the white man, and though he had never seen one, he had heard that such fish here caught by the 'sahgenash' French River, but he had heard of 'maskkenojie, which meant a long thin pibe 'mask' being the Indian word for 'thin'; that there was a lake, close to Lake Pen-'Mash-kenojie sakayigan,' meaning the lake where all the pike thin. About thirty-one years ago I hapnened to be fishing in this very lake, which is called Long Lake, and, even to this very day. I remember that the pike that I caught there were very long, narrow pike, and I marvelled when I caught them, but since then I have studied the subject a little more closely, and I find that the lustiness of a pike, depends upon the size of its liver. A good healthy pike has a large liver, whereas a thin pike, a regular 'Mash-kenojie' had hardly any liver at all.

Whether the size of the liver is more an

effect than a cause. I could not say for certain, that is, whether a scarcity of food makes the pike thin, and consequently, its liver is affected, or whether the affection of the liver makes the pike thin, but I know that there is a corelation between the size of the liver and the health condition of the fish.

Regarding the markings and colorings of pike, this is a question that principally depends upon its environment, for it is well

known that Nature evolves, for the protection of all her children, a certain amount of adaptability, whether in coloring, or in shape, to the sucrounding conditions and hence, whether for the purpose of self-protection, or for the purpose of more easily securing prey. she gives the pike a coat that suits it best, some of a dark green, or even black, and others light, and irridescent. These are my theories upon the burning question of pike and maskalonge

Trout in the Laurentians.

By WALTER GREAVES.

A party of four of us left Ottawa by the Canadian Pacific Railway at nine o'clock, on Sunday morning, the 22nd May, for Maniwaki (82 miles distant) where we arrived on time-at 12.45 p. m. D. Millar met us at the station with a powerful wam and a strong well-made wagon and drove us about a mile past his farm on the Joseph River, about ten miles from the station, where we arrived at 4 o'clock. Such roads I never drove over in all my experiences. The black mud was up to the inh most of the time and it was just as much as the horses could do to pull us out of it sometimes. A brother of David Millar met us at the spot mentioned and nelped us to carry our traps in to the Lake .-about seven miles distant. We had nands full by the time we got there too. neing soft from want of exercise and accustomed to carrying. We reached our destination (Trout Lake) at 9 p.m., after twelve hours steady travelling. I was too tired to eat anything and went to bed after a cup of tea. The Millars had everything in first-class shape for us, having taken in the tents ahead and made us good beds of cedar, etc. We had also two splendid birch bark canoes of about jourteen feet in length, perfectly dry. The next morning we were up about five and I took a ture just in front of the camp and landed for small trout with the fly in a few minutes while they were getting breakfast ready. After breakfast T. and I started off in one canoe and D. and H. in the other.

We fished with the fly and they used worms. We had some very nice sport during the day and landed about twenty-five trout each (say one hundred in all.) were of a very uniform size,-say from ahout one-half pound up to two pounds,-the majority of them being nearer the latter Beautiful trout they were, too, and the greatest fighters I have ever seen for the size. The flies that we found the most killing were the Parmacheene Belle. Grizzly King, Professor, Claret hackle, and Queen of the Water. I tried dozens of other patterns, but found that the ones mentioned were all that we required. We got also a few trolling with a pickled minnow spoon and fly, when moving from place to place. Trout seemed to be plentiful all over the lake, but we enjoyed the best fly fishing in a small rocky bay, casting or trolling around a lovely reef of rocks and boulders. On Monday evening just about sun-down we had some grand sport here while it lasted, that is until it got so dark we could not see our flies. The 24th was not a good day for fly fishing, being too windy. Between us we, however, landed seventy trout,-quite a nice catch, but by no means a large one for this lake. The black flies and mosquitoes were very troublesome and we had to use the tar oil frequently. We packed up most tackle, etc., that night, so as to be ready to make an early start for home in the morning. It seemed as if I had only just dropped asleep when they called us at



S THE START.

Leaving the Red Rose Maiden Rapids, Desharats.



A LOVELY SCENE.

Two miles from Desharats on the Desharats-Mississaga Canoe Route.



ON BOCAGE LAKE.

On the Desharats-Mississaga Canoe Route,



THE ROAD TO CARIBOO.

And to the best sheep, deer and bear grounds in British Columbia.

3.30. After a rather hasty todet and breakfast we finished the packue up and made a start for the portage at 5:30. Instead of carrying our traps all the way David brought them down the river in the cance by a circuitous route of about twelve miles, while we walked about five We were not much ahead of him in arriving at the farm, as he had a strong current in his favor. Unfortunately it poured with rain while on the portage. We, however, found a lovely fire awaiting us when we reached the farm, and it did not take long to dry our wet coats, etc. We also had a real wash, a luxury we had not risked since we left civilization, for fear of removing the tar oil from our faces. At eleven o'clock started for the Maniwaki Station. where we arrived at about two and after saying adien to our intelligent and agreeable driver (J. Miller), we left for Ottawa by the 2.25 mixed train. Numerous anglers got on board at the different stations along the road, returning to the city after spending a few happy days with the trout. I question whether many of them had enjoyed their outing as much as we had done, certainly they could not. I think, have had better sport. We arrived in Ottawa on time and were glad to find all well at home, at least I know I was

I am inclined to think that you can have

as good sport trout or bass tishing and deer and partridge shooting up the Maniwaki branch of the C.P.R. as can be found anywhere in Canada. Most of the lakes near at hand, that is near the railway, are—I think—leased, but there are plenty remaining in which the fishing is free.

As a summer resort the Blue Sea Lake is an ideal spot, and they say the bass fishing is very fair in places,—among the islands. The accommodation, I understand, is good. Farmers on the shore of the lake will, I believe, "take you in" and provide you with boats.

The officials of the Railway are exceedingly courteous and obliging (the C. P. R. officials always are), and are re dy and willing to give any information in their power in regard to sport, accommodation, etc. If one wishes to go beyond Maniwaki for sport he might make the Maniwaki Hotel (a very good hotel, I believe) his starting point. I am sure he could get all the information necessary from the proprietor or from someone to whom he would recommend or introduce him. You could also purchase all your supplies (except your fishing tackle) et Maniwaki. outing of a week or two in this mountain atmosphere would brace up a person far more than months at the sea side. Try it.

A Modern Canadian Timber Limit.*

No name in the lumber industry is better known than that of J. R. Booth of Ottau.s. or has a longer or more direct connection with its history and development.
A visit to Ottawa would not be complete
without seeing the Chaudiere Falls, which
initials such a magnificent water power
and Mr. Booth's immense sawmill, probably the largest on the continent, of 700tion teet board measure capacity per day of
twenty hours. This mill is unique also in
that it is kept running both summer and
winter, the supply of logs being brought in
by the Canada Atlantic Railway during the
we ter months from the limit on the Mad-

awaska River, owned by Mr. Booth and known as the Egan Estate Limit. A visit was made to this district a short time ago by two members of the Canadian Forestry Association, with the object of getting such information as a hurried visit might permit as to the condition of the forest and the method of management.

Leaving Ottawa by the Canada Atlantic Railway, and passing through the agricultural counties of Carleton and Renfrew, at a distance of about one hundred miles from the city the country begins to change its character. Settlement becomes more scattered, the ground more rough and

[·] suributed by the Officers of the Canadian Forestry Association.

trees appear here and hilly, coniferous there in clumps, the rampike begins make itself a feature of the landscape. From Barry's Bay to Aylen Lake the green of the new growth breaks the hard lines, but for the ten miles from Avlen Lake to Madawaska there is nothing to relieve the bareness of the scene. On each side of the track the forest of rampikes stretches away, blackened, barren, desolate, yet bearing mute witness of the noble forest which had occupied the land before the fires destroyed its beauty and its riches. These fires are not all caused directly from the railway, and the management of the road being controlled by a lumberman, great care has been exercised both in construction and operation to prevent danger from this source. But the easy access permitted by means of the line increases the risk from other directions, and fires start in proximity to the railway frequently though as a rule they are kept sufficiently in check to prevent serious loss. One fire can, however, do damage that a century cannot repair. When a fire occurs, the staff, not only of the lumber camps, but also of the railway, is called out and everything else is subordinated for the time being to the necessity for preventing the spread of the conflagration. A determined fight was required during the dry months of the spring of the past year to control the fires and to prevent the destruction of the village of Madawaska.

The Egan Estate Limit, which covers an area of 333 square miles, is situated both north and south of the railway line and on the north touches the limits of Algonquin Park. Operations have been carried on by the present proprietor for a period of forty years and, although the cutting has not been done as severely upon it as upon some other limits, still it has usually amounted to eight to ten million feet board measure per annum, but the resources of this limit will permit of the cutting of a similar quantity for possibly thirty years more. What the possibilities are after that period has elapsed only a careful examination of the whole area would give the data to decide, but a description of the present stand methods of lumbering may present some facts that have a bearing on the question.

From west of Madawaska, which is located about the centre of the limit, a logging road runs in a distance of about ten miles to the north, where operations are now being carried on. The district which is being lumbered covers an area of about six miles, but the forest is as nearly pure as can be found anywhere in Canada of pine of the best size and quality. The stand would in parts at least reach 20,000 feet. b.m., to the acre, the trees being one hundred feet and upwards in height, while the general diameter of the logs ranges from sixteen to thirty inches. An examination of the annual rings of several logs showed an age of 120 to 180 years. Scattered among the pine, but not forming any important part of the stand are white birch. balsam and hemlock, none of which have attained to a large size. Along the low grounds the black spruce is found, but nowhere in a continuous stand and the average diameter does not exceed eight inches, with a height of 60 to 70 feet.

The compactness of the area on which operations are conducted permits of easy access by rail. The trees are felled by sawing. A notch is cut with an axe on the side to which the tree is to fall and the saw is used to cut in from the opposite side. Inch by inch the saw eats its way through the great trunk, the top begins to waver, it slowly inclines, a crack is heard at the stump, the men stand clear, slowly and majestically at first the monarch of the forest bows his head, but with ever increasing speed till at last it crashes swiftly down, creating a miniature snowstorm, and hearing down the small trees in its path. The work of a century is brought suddenly to an end, but only to be changed into new forms and to complete more fully its sphere of usefulness. After the trees are felled they are cut into logs of proper length with the saw and those that are of sufficiently good size and quality may be made into timber, square or waney. They are then drawn to the rollways, to which roads are cut, and from which they are carried by sleighs to the railway. There by steam loaders they are elevated on flat cars and transported to their first destination. The logs will be sawn into boards at the mill at Ottawa. The timber will he taken to Coteau and rafted by the St. Lawrence to Quebec, where water delivery will be given to vessels supplying the old country market. The deftness and skill with which the makers of square or waney timber can smooth the side of a log with no other tool than the broadaxe, so as to equal the work of the best plane, is beyond conception to one who has not seen the operation. So expert do they become, that one of them was prepared to wager that he could smooth a log as well with his eyes shut as with them open. Time did not permit, however, of putting him to the test.

The cut is practically a clean one. All the pine is ready for the axe and when a tract is cut over nothing is left but a small and scattered stand of birch, balsam and hemlock. The land is hilly, the elevations being considerable and in some cases quite abrupt. The soil is, so far as could be ascertained light and stony, and unfitted for successful agriculture. There are a faw farms located within the bounds of this limit south of the railway and for a few years, before the forest soil is exhausted, the returns seem to indicate that agriculture might be successfully carried on, but continued cropping soon demonstrates that permanently profitable occupation of these lands for farming purposes is impossible.

At the lumber camps visited the only wood taken out in addition to the pine is the yellow birch. This is found mainly on the hardwood ridges cresting the hills, where the coniferous forests change to one of almost pure hardwoods, comprising yellow birch, maple, elm and ironwood. these the vellow birch forms the finest and largest trunks, some logs reaching thirty inches in diameter, while the average is sixteen to eighteen inches. These trees are cut into deals for the British market; where, it is stated, though no doubt the allegation is a slander, they undergo transformation and appear in furniture as cherry or even mahogany.

To return to the question as to the future possibilities of this limit it may be set down as distinctly settled that no such stand of pine as is now found will be reproduced. A cycle of 120 to 180 years is greater than can be again allowed. The timber must be grown at a faster rate and in a shorter period. But shortened as it

may be it can hardly be much less than one hundred years to give lumber of proalue and get the best resurns. This is why devastation by fire is so harmful and why the problem is one that requires early consideration. That the pine is reproducing itself naturally is certain. To what extent or how far the process has advanced there was no opportunity to ascertain, but careful and thorough studies of selected areas such as this limit presents should be made, as in no other way can the necessary data on which to base methods of permanent management be obtained. This is a matter that should be taken up by the government and the lumbermen in co-operation so that both scientific and practical knowledge may be brought to hear upon the question. As the pine is a mature and even stand, the method of clean cutting is the best and the only one, but a study of the process of reproduction might suggest some modifica tions that would help to this end. Accurate, definite, scientific knowledge of the physical, natural and economic conditions is what is required and this can only be gained by full and close investigation of concrete cases, and of the forest as it now exists and is being exploited.

ωſ lumbering operations This sketch would not be at all complete unless some description was given of the shanties themselves. The picturesque log shanty is here becoming a thing of the past. Logs are too valuable to be used whole for this purpose any longer and the shanty buildings are made of boards shipped up from the mill at Ottawa. The buildings in which the men sleep are well-built and comfortable, are commodious and well ventilated and double row of bunks down either side make very good quarters. The cook's domain is in a separate building, which also forms the dining-room for the men. The fare supplied is of good quality and of sufficient quantity and variety to satisfy any reasonable, or perhaps even unreasonable person. The complaint of the wife of a shantyman who lived in Ottawa, that she could never supply things to please her he came down from after kusband shanty, may therefore have had some other animating cause than the contrariness of the male animal in general when he thinks that he has the opportunity of making a show of an authority, which he does not really possess.

The typical shantyman is good-natured and friendly ia disposition, ready to give help or information, open in character and with a weakness for getting his photograph taken, which is at times somewhat embarrassing. They are a strong, stordy class of men, for whom it is to be hoped Canada will always have room and for whom in her perpetuated forests the health giving and strength-developing labor which the number business supplies may always be furnished.

As a pleasurable and health-giving recreation nothing can excel a holiday in the pine forests, even if it be in the depth of winter. As you step out into the bright sunshine and the crisp, clear air, the dazzling brilliancy of the sunlight as it plays over the snow, the white smoke rising sharp into the atmosphere, the encircling forest, looking down upon you, its sombreness broken by the hanging snow wreaths that weigh down its branches, combine to form a picture which has its own peculiar charm. You step out briskly, the fresh wind strikes your cheek sharply, you swing into a strong stride, out under the trees of the forest and looking up with something of reverence to their overtowering height, pressing on upward till the pine trees open their serried ranks and gradually give place to the birch and the beech and the maple, still, however, leaving a few great lone sentinels to guard the borders of their domain, till at last you reach the leafless hardwood forest of the wind-swept hilltop, through occasional openings catch glimpses of the woods and hills beyond. The great birches stand hoary in their

gray mantles, the maples with the shaggy marks of age upon their trunks, the beeches with their picturesque gray bark ever smooth as with the appearance of youth. all these mingle their branches far above you and trace gigantic fairy patterns upon the sunlit snow beneath. The snow in piled in fantastic wreaths and crests, the stumps of the departed giants with a glory of white covering to conceal if it may be their fallen estate, or to stand as a memorial of their vanished greatness. The solitude of nature is about us, full of noises and whisperings and mysteries. But we are not alone. Hark! Chick-a-dee-dee. he is, the bright little fellow in his suit of gray and black, hopping cheerfully about from limb to limb. Cold does not daunt or storm dismay him. The winter has no terrors for him, but through all its snow and frost he keeps on his happy and busy way, ringing out his cheery call to welcome each new day. Hear it again. Chick-a-dee-dee. It rises clear and penetrating through the frosty air. Thanks, my little friend, for your cheery greeting, melancholy cannot linger under its bright influence and the exhilirating power of your winter woods. As we retrace our steps, a squirrel, halfburied in the light snow, hurries across our and disappears under a rollway of logs or into a thicket covered by the protecting snow. No other sign of life appears, except it may be that, as we near the camp, the moose bird flits quietly from tree to tree, and gazes at us with curious eves, inquisitive and not afraid. what may be gained from a visit to the winter woods. The blood runs strong, appetite is keen, the mental powers are clear, the whole man is braced and stimulated.

The annual report of the Department of Agriculture for British Golumbia has been received and is of the usual high standard, both in information and the character of the illustrations. We quote the following from the summary by Mr. J. R. Anderson, the Deputy Minister:—

"Much time has been devoted to this subject, which is one of paramount im-

portance, not only being a source of immense wealth to the Province, but as affecting its agricultural interests most intimately. Two papers have been prepared for the annual meetings of the Canadian Forestry Association, dealing with the subjects of the forests and their preservation, which have been received with marks of unqualified approbation. Forest fires, al-

though not so destructive as in some seasons, have, nevertheless, caused much loss in some sections. What the remedy is it is difficult to say. Inquiries are being instituted as to the principal causes of fires and the possible remedy.

It is a matter of regret that no representative from this province has attended the meetings of this Association, which seems to be taking such a lively and practical interest in this all-important subject. Suggestions have been made by the Society for certain amendments to our "Bush Fire Act" so as to make 12 more efficient, which were carried into effect, and which, it is hoped, will prove to be somewhat more effective in preventing fires, which have been so productive of the enormous losses which the province has suffered in the past. The appropriation of \$200 made by the Legislature towards the support of the Canadian Forestry Association is most judicious, and will, I feel assured, prove to be money

well spent. Specimens of our woods were and are being, under the authority granted. prepared, a full set being kept in the Department; another set for the Agent-General; others for exchanges with the Government of New South Wales, the Canadian Forestry Association, and to supply the requirements of Mr. Herbert Stone, England, made through the High Commissioner, the object being the proper identification of commercial timbers for purposes of trade. Mr. Stone says: "It is my desire. whenever the size of the specimens received will permit, to prepare a set of described and authenticated specimens for the Museum of the Birmingham University, the Warrington Museum and the Museum of the Surveyors' Institution. In no case do I desire or expect to receive any remuneration for my services, or for specimens devoted to public purposes. Any information I may derive from the specimens received will at all times be at your service."

Prince Edward Island Forestry Commission.

The report of the Forestry Commission of Prince Edward Island has been presented by the Commissioners, Judge ... B. Warburton, Rev. Dr. Walker and Hon. R. R. Fitzgerald, and contains an interesting review of the forest conditions of the Island and the means suggested to improve them.

The first part of the report gives a summarized statement of forest administration in the different countries of Europe, in the United States and in other parts of Canada, and then points out the distinctive features of the problem as it affects Prince Edward Island. We quote from the report, though not in consecutive order:—

"As we have already pointed out, in all these countries there are enormous areas of land owned by the State, very much of it virgin forest, forest which has been carefully manazed and preserved for decades, or land not now in forest, but suitable for lorest growth. With the exception of a few thousand acres of our worst lands, this Province may be said to have no public

One or other of your or Crown lands. Commissioners has personally visited some of the larger sections of this public land and with the character of most of the remaining sections they were already acquainted. It largely consists of white sand blueberry barrens and swamp. The white sand and blueberry barrens would not be worth planting to any considerable extent, though as a experiment we would recommend the planting and seeding with pine or other conifers of small plots, say one-eighth or one-quarter of an acre each. in some few places in those barrens. These plots would require to be fenced in so as to protect the young trees from cattle, etc. They should also have a certain amount of care and attention bestowed upon them, in a word, a certain amount of culture. The experiment of planting two or three of such plots in the large 1500 acre block in King's County, and similar plots in the blocks in Queen's and Prince would be an experiment that would cost

^{*}Contributed by the Officers of the Canadian Forestry Association.

comparatively little and would be well worth trying. It is very possible that in time satisfactory results would be obtained and it might be demonstrated that even these apparently hopeless looking lands are capable of being utilized for forestry purposes.

On Souris Beach in this island the preliminary work for trying the experiment of establishing plahtations on the sand dunes has already been done. There the beach is a long sand spit, running for about half a mile from East Souris to West Souris. A bay formed by the Souris River is on the inner side, while the outer faces the Gulf. The public road is on the inner side, where also Souris railway station formerly stood. The sand formerly drove over the back, overrunning the road and gathering to considerable depth in and about the station. To prevent this, the late Hon. J. R. Mc-Lean a few years ago had a plain brush fence run along the centre of the beach. This caught the sand and gradually formed low dunes. The beach grass has now grown over a great part of it and is continuing to spread, and the road is no longer subject to the iaroads of the sand. It might he worth while to try the experiment of planting or sowing this sand beach, now through the preliminary or grass stage, with the maritime pine. In other parts of the island the preliminary or grass stage has not vet been reached.

To make the swamps of value would necessitate a large expenditure for underdraining, an expenditure in our opinion not justified by any results likely to be obtained. Moreover, these swamps in all likelihood are at present of as great value and serve as useful a purpose as they would if brought under forest, inasmuch as they form reservoirs or storehouses from which springs and brooks in their neighborhood derive their supply of water.

In the early days of our Colonial existence, with the whole Island a dense growth of the forest primeval, trees were looked upon almost as enemies and the question was how to clear away and destroy most quickly the forest growth in order to have cultivated fields in its stead. The process was overdone. It resulted in the stripped, hare section already referred to. The question now is how to restore in part at least the forests so destroyed.

That the people are not at all indifferent to the heauty and utility of trees is evidenced by the planting of windbreaks, shelter-belts, wood-lots and hedges on some farms, as well as the planting of ornamental trees about private residences in town and country, along the streets of our towns and villages, even along the public roads in many country places. Unfortunately in too many instances these plantings have been without knowledge. Too often the trees selected have been of a valkind, ueless and also too often have poor specimens when the themselves have been of a good kind. The planters did not have the necessary skill and knowledge to good selections, or after selection the necessary knowledge of how to trim for planting, how to plant and how to guide and care for after planting. This skill and knowledge are very easily acquired, but the want of it in many instances meant failure, disappointment and consequent discouragement.

On the other hand there are not a few instances of intelligent, skillful and systematic planting and care of trees and forest growth. The greatly increased attention given to fruit trees during the last decade has made many farmers familiar with tree planting. In many parts this Island is tastefully laid off and furnished with trees, hedges, and useful forest stretches.

These, however, are isolated instances. By far the greater part of tree planting and re-foresting remains to be done.

thick shelter around farm buildings and well-cared for hedges around our fields are almost a necessity for successful agriculture. Considering the high and yearly increasing price of all kinds of lumber it pays to grow that article as well as other Much valuable timber might be grown c., land now wasted. Valuable trees such as black walnut, not indigenous to the soil, might well be introduced. grow well here and are of great value when well grown. The fact that so little is done only emphasizes the need for instruction in forestry. The absence from our farms of what is known as the wood lot.

growing timber for various purposes as well as for fire wood, proves a want of knowledge and up-to-date agricultural economy.

In this Island a great transformation can be made in a few years on the farm by the planting of a few trees every year. The material is not expensive, as most of it can be got from the native woods. There is quite a variety of these available. hardwood, we have the hard and soft maple, the beech, the birch and mountain ash and in the conifers the spruce, balsam fir, hemlock, pine and cedar, while in some places a juniper bush could be placed to advantage. The Norway spruce can be got very cheaply in large quantities when they are small. They grow more quickly than our native spruce. A piece of ground on the north side of the buildings planted with evergreens will break the force of the cold winds in winter and make the place warmer. Trees should not be planted too close to the house, as they darken it, obstruct the view and cause dampness. The spring is the best time for planting most kinds of woods, though some prefer the autumn. An expert can plant any time, but we would advise those who are no, experts to stick to the spring. Our native spruce can be planted in mid-summer, in July or August, and your Commissioners in their own experience have found that a good time.

The time has arrived when arboriculture should receive more attention. If the rudiments of the art of planting were taught in our public schools a much desired impetus would be given to it. Farmers in planning out the spring work might well allot some time to tree-planting, as part of the farm routine work, just the same as to put in other crops. It would be time well spent and in the end would pay. Many of our farmers have already established shelter groves or belts, wood-lots, in fact, and now enjoy the comforts and benefits of their protection in winter and summer, besides the lumber which they get from The forestry question would be solved if the example of such farmers were universally followed, and wood lots and shelter belts established on every farm. That shelt-r-belt, if of adequate proportions, would protect not only the farmer and his household, but his live stock as well. It would also protect his orchard, an indispensable adjunct to the up-to-date farm of today. In this respect a splendid example, (to which we must call attention), is to be found in the admirable shelter belts around the residence, farm-buildings and magnificent orchard of John Robertson of Inkerman in King's County. He has no fear of a storm from whatever quarter the wind may blow, when the trees are in bloom or in fruit there is ample shelter to protect them from any wind.

Shelter belts must not be too small, if they are to be of use. If they are too small they will not break the wind, stop snow-drift or ward off the storms from the three dangerous quarters, namely north, northeast, and northwest, but just big enough to gather snow-drifts around the buildings in winter, whereas such shelter, if only fifty yards wide, with sheltering arms projecting to embrace the farm buildings, residence, orchard and gardens and all they contain, would be both useful and ornamental. The shelter-belt, if conditions warrant it, might be made large enough for a wood-lot as well, or there might be several small wood-lots on the farm. Even this winter on the farm of one of the Commissioners men cut from the shelter-belt in a strip across it timber for fence boards and posts, with a view at the same time of reforesting the area cut, by natural seeding, a practice which experience has proved to be commendable. trees are of about thirty years' growth, those on about one-quarter of the area are some ten years younger, but all large enough to make framing material for large barns, fencing, boards or shingles.

As to school grounds, while land is comparatively cheap, why not have them to consist of from one to three acres each, well laid off. planted with trees and affording plots for experimental work and for nature study by the pupils in plant and flower growing, in a word, a public woodlot and garlens for the school district with the school-house in the centre. This would be of immense utility to the neighborhood, if only as an object lesson.

In the matter of straightening our public roads, defining their metes and bounds

and marking out the place for the roadside tences with standard trees, some twenty or thirty yards apart, the assistance of the Department of Public Works would be invaluable and a beginning even if in a small way might well be made this spring. The road supervisors could apperintend the work of laving off the roads and planting the trees. Very little instruction would fit them for this work and they could be made the basis of a systematic forestry organization, and organization is most important. One day, Arbor Day, would be ample for planting a great number of trees in this way. The school children and their teachers might well assist as they did in Charlottetown in 1884, when Queen and Rocheford Squares were planted, as well as many trees set out in different streets. It would afford them a pleasant holiday and a very valuable lesson at the same time. The members of the Fruit Growers' Association, a well-organized and intelligent body of men, already skilled in treeplanting and whose members are to be tound in all parts of the Island, could and doubtless would, lend most valuable assistance.

It is remarkable that in a province of such extensive and general forest flora as this, with the maturing on the trees and the subsequent shedding of seeds under their very eyes, so few people can identify or collect half a dozen varieties of the seeds of our broad-leaf or conifer trees. The superiority of our native tree-seeds over the imported; and the fact that the latter cost so much money, united to the necessary re-seeding to some extent our denuded acres, should make it imperative on the part of every Islander, to know the different varieties of tree-seeds and be able to collect them at the proper time. When we understand that the ordinary seeds of the pine, hemlock, spruce, larch, fir and cedar, will average over \$4.00 per pound, we can easily see that to buy them would entail an outlay we are not at all prepared for; and the seeds of the broad-leaf or deciduous trees, being much larger, heavier and more bulky, are proportionately dearer. We can readily gather seeds of the maple, ash, beach, birch, elm and even the oak. People could co-operate and exchange the seeds plentiful in one section for those

grown abundantly in another section of the Province. But it is important for good results that the seeds be consigned to soil and atmospheric conditions similar to those whence they sprang.

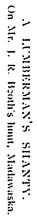
In order to the eventual systematizing of the planting of trees and so carrying out the work of re-afforesting, as adapted to the conditions in this Province, we would suggest that all teachers when prenaring for their profession, should be given some very elementary instruction on matters connected with tree-planting, or perhaps we should say, natural history.

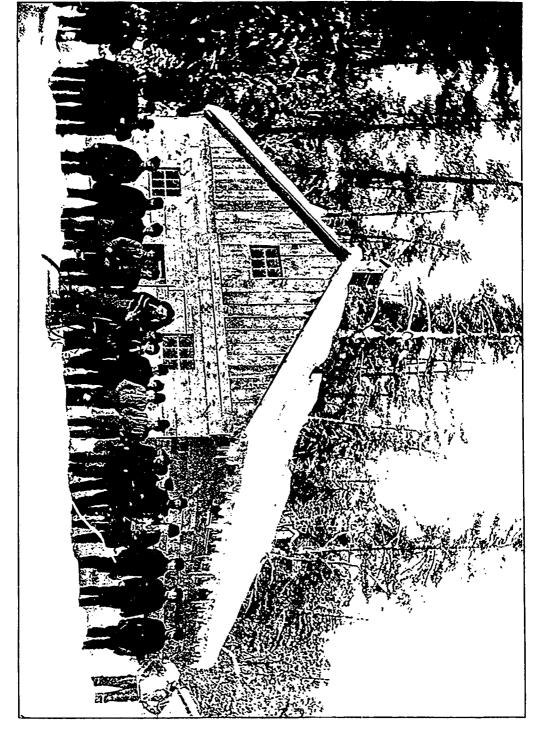
Each teacher in turn could instruct his pupils and they could readily plant the school grounds (where there are any) and the sides of the public roads, so that in a very short time, a marked improvement in present tree conditions would be brought about. In fact, this would be introducing a very elementary, yet very useful forestry lesson into our common schools, and it would be looked upon as an amusement.

Then if an inspector, whose duties should be similar to those of the gentlemen who have given such valuable instructions to farmers with regard to sites for orchards, selection of trees, etc., could go over the country imparting information to the public as to the best situation for wood lots, kinds of trees to be planted, etc., the pursuit of forestry would be greatly stimulated and would show good progress.

We have already referred to the Fruit Growers' Association. The assistance of members of this useful institution would be of immense value and we have no doubt would be freely given. Already in setting out and caring for their orchards they have acquired a practical knowledge and skill required in tree planting and selecting. As they are to be found in nearly all parts of . the Island they could do much towards re-afforesting here. We would suggest that their co-operation be sought in any systematic effort that may be put forth to make tree-planting a success in this Province.

What we have said as to the Fruit Growers' Association applies with equal force to the various Farmers' Institutes through this Island. These institutions in their







A "ROLLWAY." White pines converted into logs.

own interests would surely help in the work.

We further suggest that a small portion of the Government Farm be set apart as a nursery for the growing of young forest trees for distribution among the farmers at actual cost. These should be grown from the seed and at the age of two years be distributed for planting. This is what the Government of Ontario are now about to do at the Agricultural Farm at Guelph, and it seems to us to be a very excellent idea. In this way in a very few years and

at trifling cost, many thousands of trees of kinds selected for their economic or commercial value could be distributed throughout this Island.

An Arbor Day proclaimed by Order-in-Council each year, or fixed by Statute as a public holiday, in which schools and all persons interested in the work would devote a few hours to tree planting would, we feel assured, do much good. Such a day is observed in other places with gratifying results.

Salmon Fishing on the Fraser.*

(Continued from May Issue.)

We had thus ample time for getting every thing into ship shape in our little craft, closely observing and profiting by the action of the more experienced hands who were fitting out alongside of us. We now took up our permanent quarters in the boat, sleeping under a small tent and doing cooking on an improvised stove made from empty coal oil tin.

Several large canoes laden with Indians—men, women and children, arrived from the west coast of Vancouver Island during the time we were at the cannery fitting out. The men take part in the fishing, while the women work in the canneries or hawk about the Indian work they make during the winter months.

To those who have formed their ideas of the Indian brave or dusky Indian maiden from a perusal of the works of Fennimore Cooper or Captain Mayne Reid, a first meeting with the coast Indians will come as a disappointment Where they expect intelligence of feature and perfection of physique, they will find lack of expression and squat inactivity.

Our nots were at length served out, the fishermen and canners having come to an agreement based on a sliding scale principle, whereby the aggregate pack of the season would define the rate to be paid per fish.

Nets are distinguished by the depth in næshes, a mesh being about two inches

square. Then lengths are uniform, or nearly so. Ours was what is known as a forty mesh, the most suitable for fishing at sea, or on the banks off the mouth of the river, where the fish keep near the surface. Seventies or eighties are better adapted for the deep pools in the river, where they swim low. Our first duty after receiving the net was to give it what is known as a blue stone dip, in a huge tub or vat, containing a solution of sulphate of copper, which acts as a preservative. After the net had lain in the vat for an hour or so, it was taken out and coiled carefully away in the after part of the boat, ready for a "drift." When not in use it is covered with a piece of sacking to protect it from the sun.

Being now fully equipped, we set sail for Canoe Pass camp, one of the cannery receiving stations, near the mouth of the river. Here we found receiving scows, met racks for repairing purposes and cats for blue stone dips. all in readiness for the anticipated run, and under charge of the camp boss, a cheery little Frenchman. We spent most of the day in pitching our tent on shore and getting acquainted with our camp mates, a jolly, rollicking, funloving lot, hailing from everywhere.

In the evening at high water slack we ran out and took a tentative "drift", selecting a point well clear of the other hoats, so that no one could witness our initial attempt. As we expected, things

^{*}From Vancouver Onting.

did not run quite smoothly at first. The net would get a twist in it or foul something in the bottom of the boat; the boom, or some other part of the gear would get in the way, and so on, as if the fates had willed that every obstacle should stand between us and success. We persevered, however, each failure giving us a new experience, and finally succeeded in running out the net to if full length, one hundred fathoms with a depth of about seven feet between the lead and cork lines.

After drifting for about an hour, we "picked up", our efforts being rewarded by the sight of five plump silvery salmon flopping about in the boat. Concluding that we had had sufficient experience for one day, we got under weigh and sailed merrily home to our camp in the moonlight. After making the boat snug for the night a fire was lit and supper prepared, consisting of savory salmon steaks, hot confee, and plenty of fresh bread and butter, then to our beds of sweet-smelling hay, which had been commandeered from a neighboring hay-field.

For the next few days we had varied success, but no really good catch had been made by any of the boats when the weekly close time arrived, putting a stop to all fishing for thirty-six hours.

From 6 a.m. on Saturday until 6 p. m. on Sunday is the period prescribed by law during which no net fishing is permissible, in order that the salmon may have an undisturbed opportunity of entering the river to spawn. Our time on Saturday was occupied in repairing and dipping nets, washing out the boats, and in the evening we usually took a trip up Ladner for the purpose of laying in our weekly supplies.

Sunday we spent in idleness until late in the afternoon, then preparations had to be made for the event of the week, when thousands of boats got into position to cast their nets at a given signal.

At ten minutes to six the tension became acute and excitement ran high. Good-natured chaff was indulged in, and attempts made to create a false start. Sometimes the ruse proved successful and much merriment was caused by the embarrassment of the victim on discovering his mistake. The heavy boom of a gun at length announces that time is up, and immediately thou-

sands of oars are straining, rowlocks squeaking, and floats click-clacking on the gunwales, as the fishermen put out their nets in haste to get first down, which in this case means first served.

Soon the bobbing floats and foam-flecked water in the wake of the boats tell that the first of the season's run has commenced, and that many a sockeye has returned to the scene of its birth—and death.

After drifting for half an hour the nets were hauled in, swarming with an irridescent mass of struggling salmon, which we with great difficulty extricated from the entanglements they had made for themselves in their efforts to escape. For the next few days the fish ran in great numbers, but towards the end of the week there was a falling off, and on the following Sunday the catch was a very poor one, indicating that the main body had passed up stream.

We had average luck throughout, although of course we came in for our share of the objectionable part of the business, such as getting snagged and incurring the displeasure of the net boss, besides losing valuable time. On one occasion we drifted into the Gulf of Georgia and got our net full of dog-fish and kelp.

Again we had the misfortune to be caught in a gale of wind and had to ride out the storm to our nets, heavy surf of the bar preventing us running in. Our first impulse when the breeze sprang up was to run for shore, but acting on the advice given us by an old fisherman when in Vancouver, we bent our anchor rope to the lead and cork lines, then veered it away to its full length, thus enabling the little craft to ride out the storm in safety.

On one occasion we crossed the international boundary line and inspected the fish traps at Point Roberts and came within an acre of losing our whole outfits confiscated by the American customs officers, they having had suspicion that we were there for some illicit purpose. The traps are practically similar to those used on the coasts of China and the Straits Settlements, consisting of piled enclosures and suitable approaches whereby the salmon are lured to imprisonment. Immense numbers are caught on the American side in this manner, but the method is prohibited

in Canadian waters, as it is considered it tends to injure the industry.

When not engaged in fishing, we spent a good deal of our time amongst the ranchers in the vicinity of the river, several of whom invited us to shoot over their grounds when the season opened in September. In the camp we found a never-ceasing source of amusement in listening to the yarns and experiences of some of our mates. Mack, the forty-niner's tales of the early days in California, and the doings of the Vigilance Committee, told as they were in the free abandon, and amidst the fitting surroundings of camp life, were most entertaining.

"Old Scotty," ex-student of divinity at Aberdeen University, and latter on, mariner and chief adviser to a South Sea Island king, told us of adventures midst the Barrier Reefs and palm-circled lagoons of the Pacific, a period "when ilka King had his ain and could do with it what he liked," as "Scotty" tersely put it.

From the camp we witnessed some very pretty sunset effects, marvels of beauty and combination. We had also an extensive view of the coast range with the white peak of great Mount Baker shooting skyward twelve thousand feet above sea level, reflecting the last rays of the setting sun long after lower altitudes were wrapped in the first folds of approaching night.

Notwithstanding the hopes held out by the older fishermen that there would be another run at full moon, the fish gradually became scarcer, and the appearance of cohoes, and other species of salmon, in meagre catches seemed to justify the orders we received one morning to strike camp and turn out boats and gear into the cannery. It came as a disappointment to many, for the season on the whole was a poor one and would give scant returns to many to face the winter with.

After turning in our boats and gear we went to the office and received our cheques, then with real regret took leave of the many friends we had made while on the river. Some day, however, we may like sockeye, drift back to the grand old Fraser; but even if we do not, we still retain pleasant memories of the happy days we spent on its broad bosom.

Conservative Lumbering.**

Southern lumbermen are coming to the bureau for advice in the conservative handling of their timber lands, in numbers which tax the resources of the bureau to live up to its offers of co-operation. To illustrate the character of the problems which they bring us I shall instance the case of a lumberman in Alabama. He has 125 000 acres of land, and has spent large sams in a sawmill and logging equipment. Under ordinary lumbering these will be productive for a limited number of years only. He wants to know whether under conservative forest management they can be made a permanent investment.

In order to show him that the investment can be made permanent it has been necessary to calculate how many trees it is necessary for him to leave on the ground

after lumbering in order to make it pay to come back for future crops of timber. Now, it happens that the yield of small trees is so little that it does not pay to cut trees below fourteen inches. Fortunately this leaves pretty nearly enough trees on the ground to give a good hasis for another crop, so in his case it will not he necessary to raise the diameter to which the trees will be cut more than two or three inches in order to leave the basis which careful calculation shows will be found necessary to secure another crop, within twenty-five or thirty years. This slight raising of the diameter limit to gether with simple measures to make sure that the small trees are not slashed down or broken, are about all the modification of the present methods of lumbering which

^{*}Contributed by the Officers of the Canadian Forestry Association.

[†]Extracts from an address given by Gifford Pinchot, Forester for the United States, at the meeting of the National Lumberman's Association.

will be found necessary. And right here I want to emphasize the fact that it is going to take him just about twenty-five years to lumber his lands, so that when the first lumbering; is over he will be in a position to cut over his lands a second time.

So much for the quantity of the next crop. But the working plan goes a step farther than quantity. We are convinced that the rapidly growing scarcity of longleaf pine timber will be felt first in the failure of the better grades of lumber; that is; the supply of inferior and second growth timber will long outlast the choice material, and thus is introduced into the problem an exceedingly important consideration. It becomes necessary not only to calculate the quantity of the next crop, but its quality and value as well. lumberman has been operating in the same locality ten years. He has a board mill and makes a specialty of the best grades; of Rard pine flooring for the eastern market. Heretofore he has not considered the possibility of lumbering the same ground a second time, and so very naturally he has cut the timber as clean as possible and has taken the smallest trees which he found that it paid him to cut, but all the time he has been perfectly well aware that he was not getting any of his high grades of lumber from these small trees. Now, in order to find out just what he is getting from these smaller trees, and to calculate how long it is necessary to leave them standing before they will begin to yield the finer grades of lumber, instead of the low grades of sap and common lumber, we have undertaken to find out just what his small trees cut out in the mill. In order to do this and to get results which will be a good average, it has been necessary to take a good many trees of each diameter, and to mark the logs into which they were cut, and then to follow these logs through the mill to see into just what grades they sawed out. If this meeting had been a few weeks later I would have been able to tell you just what results we have obtained from thus following through the mill over 1.000 trees of diameters between fourteen and twenty-five inches. I can now, however, give a pretty good idea of what these results will be. The manufactured lumber from trees up to about fifteen inch-

es is almost entirely sap and common lumber, while from trees of larger diameter an increasing amount of higher grades is obtained, and the proportion of the higher grades improves by rapid jumps. Thus, one seventeen-inch tree, about the average for that diameter class, was cut into three logs, which sawed out 285 board, feet, of which 78 board feet were first and second clear, and A flat grain flooring, while 146 feet were No. 1 common lumber and 61 feet were No. 2 common lumber. One 21-inch tree sawed out:

- 32 board feet of A heart rift flooring
- 48 hoard feet of A sap rift flooring
- 48 board feet of A flat flooring.
- 32 hoard feet of 1st and 2nd clear.
- 35 board feet of \$rd clear.
- 305 hoard feet of No. 1 common.

That is, one-third of the tree made the better grades of flooring and 1st and 2nd clear. The board feet yield and the money value of the trees right around the diameter limit upon which we are figuring are important factors in determining that limit. Now, we found that an average of over 100 trees for each of the following diameters gives these results.

	Product in	Value of lumber
Diameter	board feet	at mill.
16-inch	233	\$2.90
17-inch	287	3.53
18-inch	380.5	4.22

The rate at which a tree grows more valuable is perhaps clearest shown by giving the average value per thousand board feet of the lumber of all grades which trees of different diameters yield.

The average value per thousand feet of all grades of lumber sawed from 16-inch trees was \$12.45 per thousand, while the lumber sawed from 18-inch trees was found to be worth on the average \$13.07 per thousand. In other words, this lumberman by allowing his 16-inch trees to grow until they become 18-inch trees will increase the value of his manufactured product by 62 cents a thousand board feet, or about 42 per cent., and I believe that when the yield of the trees of the large diameters is worked up, we will find the increase in value from diameter to diameter to be considerably greater.

Papegouche's Ghost.*

By C. C. FARR.

(Concluded from the June Issue.)

There are no men, or communities of men, that can sulk like Indians. Though a joyous and talkative race when in good humor, so accustomed are they to a life of silence, that when vexed, they can hold aloof from one another for any length of time. White men will quarrel, sooner than not talk; Indians simply retire within themselves, shut themselves up as it were, and when in that state, it is almost as easy to start a conversation with a tortoise as with one of them.

After the events related in the preceding chapter the Indians sulked. There was a spirit of distrust abroad, and for some time the greetings exchanged between members of the band were of the briefest kind. and often lacking altogether, but in the privacy of their lodges, their tongues wagged freely enough; at least this was the case in the lodge of the much suffering Kikendatch, for his wife rated him soundly for the fiasco of which he had been guilty. It was no use quoting her own words in proof of her own responsibility. Women, both red and white, never hold themselves responsible for anything that they say, and it was very unkind of Kikendatch to throw up in her teeth the few remarks that she might have made just purely to help him. So poor Kikendatch suffered until he heartilv wished that he had not called in Kinabikokomis when his wife was ill, and he really began to think that he was a iool.

Wahgouche found living with his mother something like what he could imagine living with a she bear would be, only a little more so. She accused him of spoiling the whole plot by overdoing it in his account of the slaying of Geetchinodin by the Wendigo, forgetting probably that she herself had planned the whole account for him, even to the 'gobbling up like pigs eat peas and not spitting out his shoes for cobbles.'

It was probable that in all the other lodges the poor lords of creation suffered, for they dared not go forth, preferring to

brave the dangers of their homes to those of the bush, but as our story does not concern them, all that can be left to the reader's imagination.

A day or so before the time appointed by Kikendatch for the final decision as to which of the two aspirants for his daughter's hand should win her, Manandahwis appeared upon the scene. He came with the avowed object of ascertaining if any word had come concerning Geetchinodin, and expressed deep concern when he learned that there were no tidings of him; however, his arrival was hailed with delight by all, for he was a powerful chief, and held in high repute, especially was Kikendatch rejoiced to see him, for in him he recognized something to lean upon, a strong man, with whom he could take counsel, and whose acknowledged wisdom might be of service to him in his great dilemma, therefore he laid before him the whole matter, omit; ting nothing that he knew regarding it. Manandahwis did not take long to consider, but gave his decision at once, which was as follows:-

"My brother. The word of a man when once given should be sacred, and he init. has a forked tongue is despised by friends and foes alike. You promised Geetchinodin to give your daughter to no man until three moons have come and gone. Keep Give her to no man until vour promise. then. You promised Wahgouche that he should have your daughter, provided at the end of three moors, he still lived, therefore at the end of the time appointed, if Wahgouche is alive, he will be entitled to wed her, and neither man nor spirit can gainsay it, therefore make your preparation for the time is drawing nigh, when she, according to your word, will have to be bestowed upon one of the two men."

At these words Kikendatch greatly rejoiced, and issuing forth from his lodge he proclaimed to the people the result of the deliberations of the two chiefs, which was to the effect that a great feast would be given, that the wedding ceremony would be

^{*(}Copyrighted)

on a scale so magnificent that it would eclipse all previous affairs of the kind within the memory of man, and that no demonstration natural or supernatural, should prevent its consummation. This proclamation was hailed with delight by the people, and once more joy and light-heartedness reigned supreme, for Indians dearly love a feast and have a childish regard for the ceremonial, be it at a wedding or a funeral. It would be hard to define the ieelings of Wahgouche and his mother. At times they would feel elated and triumphant, but more often depressed, and apprehensive, for deep down in their souls they knew that they were not worthy, and dreaded just retribution for their crimes, but as the long looked for day drew nearer and nearer without a single sign from Geetchinodin, their spirits rose, and Wahgouche hecame almost feverish in the activity that he displayed in furthering the preparations for the coming ceremony. the evening before the eventful day, there was a slight suspicion of anxiety pervading the band, for they dreaded lest they should be again called upon to witness the gruesome sight that had struck terror into their hearts so recently, but the evening passed off quietly, not an abnormal sound breaking the whispering hush of the bush, though just about midnight, the notes of kook-kook-koo-hoo rang out clear and distinct, causing many hearts to leap in breasts, and blanching the faces of not a few, for their nerves were unstrung by the untoward events of the past three months. The sound was very close, apparently proceeding from the immediate vicinity of Papegouche's grave. Manandahwis appeared to be the only one unmoved, and insisted on going to the grave with the object of investigation. Kikendatch begged him not to do so, and finally, when he found him obstinate in his determination, offered to accompany him, but strange to say, this proposition appeared to frighten him far more than the uncanny sound, and he not only peremptorily refused the offer. but insisted that Kikendatch should use his authority in preventing others from following him, which Kikendatch promised to do. Manandahwis returned within the space of half an hour, and was able to report that all was quiet, that Papegouche was

sleeping as only the dead can sleep, and that he had heard the muffled swish swish of the wings of the bird as it flew away at his approach, therefore were the people satisfied, and slept soundly until the dawn; not so, however, Kinabikokomis. For the first time since the proclamation of the feast and wedding had been made she became thoroughly frightened and could not sleep, and while Wahgouche was lustily snoring she mumbled and muttered imprecations as she tossed and fidgetted under her blanket. At length her restlessness awoke Wahgouche, and he asked her why she could not sleep.

"The owl, the owl. I fear that owl had two legs."

"Most owls have two legs," said her son jocularly.

"Fool," cried his mother. "Can you not see that it may have been Geetchinodin."

The effect of that dread name upon Wahgouche was electrical. He started bolt upright in his bed, and gasped, but was so overcome by the thought that his deadly enemy might be in the neighborhood that he was speechless.

"I distrust that Manandahwis," she continued. "I distrusted him from the first, and when that cry rang out I watched his face, as he came out of the lodge of Kikendatch, and it was not the face of a man surprised and somewhat frightened; why there was even a smile upon it, and a man does not smile at a noise like that, in these anxious days, unless he expects it. I would have followed him, but Kikendatch prevented me, and if I had gone in spite of him I should have attracted notice, that perhaps might do harm, for I tell you my sou we have many enemies."

It was now the turn of Wahgouche to toss and fidget in his blanket, for his mother's words had struck terror to his soul, and the first shimmer of the coming dawn had tinged the eastern sky before he again dropped into a troubled slumber.

The day broke bright and clear and the Indians were early astir, for there was much to be done. A large circular space was cleared; even some of the lodges being removed to give more room. In the centre of this three high seats were erected, one for Wahgouche, one for Kinabikokomis, and one for the bride, and in front of them the

sacred fire burned, the fire from the embers of which, is kindled, the fire on the comestic hearth of the young couple.

In spite of the sleepless night spent by Wahgouche, he was up betimes, and with the help of his mother, was gotten up in gorgeous array. A complete new suit of beautifully dressed deerskin, encased his person, a suit that had cost his mother much labor in the making. So delicately and carefully had it been 'smoked' that the coloring harmonized perfectly with head-dress that he wore, made out of the skin of a vellow fox. Down the front the dyed quilts of the porcupine had been cunningly wrought into patterns of flowers and trailing vines. His moccasins also had been treated in the same manner, and in fact from the standpoint of savage finery. he was faultlessly attired.

Whether by accident or design, Kinabi-kokomis had assimilated her appearance to the name that she bore. A long flowing robe of mottled loonskins enveloped her from head to foot, and upon her head rested an entire skin, with head and neck outstretched, which when she swayed from side to side, as was her constant custom so to do, gave an eeric suggestion of a snake about to strike, while hencath that bizarre head-dress, her dark and baleful eyes glittered with uncanny malevolence.

And now the appointed time for the ceremony had nearly arrived. Already the people had gathered around the circular space awaiting the principals, but Manandahwis after making a gesture enjoining silence, addressed the people as follows:

"My children. There is yet one more thing to be done before proceeding with this ceremony, and to leave it undone would be a shame on us, and that is to pay a propitiatary visit to the grave of dead man vonder," pointing to the spot where Papegouche lav. "We all know the strange and awful part that he has played in this matter, and it is right for us to ascertain, if, at this final moment he is pleased with what we are about to do, therefore, let us, both old and young, visit that spot, and you, my brother," turning to Kikendatch, "I appeal to you to see that, with the exception of the bride - for this will of necessity be a trying day upon her, none fail to pay this act of reverence to the dead. I have spoken."

It was evident by the shouts of the people that this proposition met with general favor, but Kinabikokomis was very wroth, and whispered to her son:

"Matcheeawaygwan? (What devilment is that man up to now?) I have seen enough of that grave. I think that the dead man needs company, and he shall have it," she hissed "before many days."

But for all that she went; she and her son heading the procession. Slowly they wended their way, setting forth the merits of the dead in a melodious, though somewhat monotonous chant. Thrice they circled round the grave, and then returned, having found everything in perfect order, so that even the old woman was pleased, and thought that perhaps she had wronged Manandahwis, but when they again came m view of the camp a sight greeted their eves that filled them with wonder, and Kinabikokomis grind her teeth. whilst the legs of Wahgouche trembled, so that he could hardly walk, for there, near the centre of the circle, with his arms folded across his breast, stood Geetchinodin. Some thought that it was his ghost, and were afraid, but Manadahwis seemed neither frightened nor surprised, and stepping forward, greeted him by name. they all knew that it was no spirit, but that it was Geetchinodin in the flesh, and excepting our wicked pair, they were all glad, and rejoiced greatly, for Geetchinodin was much beloved by the people. Wheil greetings had been exchanged, and kindly words spoken to the man who had been so long mourned as dead, Kikendatch spake thus.

"My son. We surely thought that you were dead, and we now rejoice as over one who has risen from the dead. But what has come of your accusations against Wahgouche? He is alive and well, and, according to my promise, today he weds my daughter, Winiwaya. What hast thou to say? Speak for the time is nigh when thou must forever hold thy peace." And Geetchinodin answered him thus:

"My father, I have nothing to say. It is true that you promised Wahgouche that he should wed your daughter, and I thought to prove him unworthy, but I have

failed. I thought that the Geetchimanitcu would strike him dead, but he has not done so; therefore, His will be done. Let the ceremony proceed. He has won and I have lost. I said to you: 'Let him who lives have your daughter, Winiwaya, for his wife.' Wahgouche lives, and I—but let that he, for that is yet to come.''

Then Wahgouche taughed aloud, and Kinahikokomis chuckled in her glee; but a shade of disappointment fell upon the rest, for those were not the words of a hero, and their idol, if not shattered, was at least badly chipped; however, there was nothing to be done but to take him at his word, so they installed Wahgouche upon the centre seat, and his mother they placed upon his left, leaving the seat on his right for the bride, whom the maidens had already gone to fetch. As they thus sat, Wahgouche and Kinabikokomis, waiting for the bride, Geetchinodin, stepping forth from the circle of onlookers, stood before them, on the space intervening between ; the seats and the sacred fire, and looking sternly at them, addressed them thus, so that all men could hear:

"You Wahgouche, and you Kinabikokomis, I have somewhat to say unto you. I know your evil deeds for the spirits have told me. I well know how my brother, who lives yonder, was done to death at your hands, and his blood calls for vengeance, and yet would I have mercy, for since I last saw you, my heart has been stirred with strange emotions, things that I have heard from a people wiser than we are, aye, wiser even than you Kinahikokomis, who have the wisdom' of the snake; therefore, if, even now, at this late hour, you repent you of your evil deeds, and are willing to depart to some other spot, where the report of your past cannot follow you, then will I stay my hand or rather the hand of the spirits whom you have offended, and let you go in peace. I have spoken."

For the space of a few moments Wahgorche gazed at his rival in silence, though if looks of hate could kill, then would Geetchinodin have dropped down dead at his feet, then gaining ms oice, he screamed rather than said:

"Well are you named Geetchinodin, Big Wind, for your words are nothing but

wind. I care nothing for your spirits, and I care less for you. I stay where I am, and you, if you like, can see the girl whom you love lying in my arms. That is my answer, so begone."

And Kinabikokomis, for answer, spat in his face.

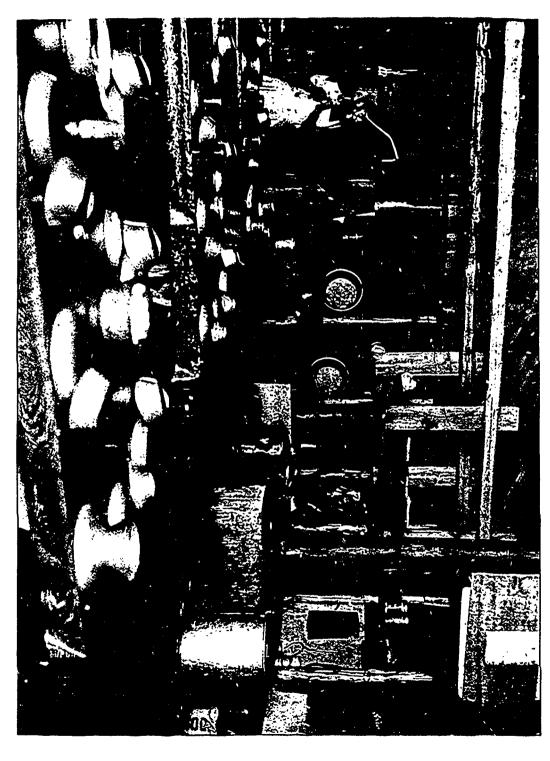
"So he it" said Geetchinodin, and taking a small live coal from the sacred fire, which burnt cheerfully behind him, he held it up before their faces, saying

"You see that tiny spark. Watch it, for ere that has died, you will both be dead." And placing the live coal at their feet, he stalked away, rejoining the circle of awestruck spectators. Then a deathly silence fell upon them all. Even the wind was hushed, and nature herself seemed to stand with bated breath. Suddenly sound of sweet young voices singing the wedding song, broke the stillness of air, and of men. It was the bridal procession leaving the lodge of the bride. For a moment an expression of concern overshadowed the countenance of Geetchinodin, but only for a moment, for almost at the same time, a report like the bursting of a cannon shook the ground beneath their feet, and the two doomed wretches, sitting upon the seats, were hurled into the air, to fall again to the ground, two shapeless masses of flesh, bones, and blood.

When the first speechless horror and fear had subsided, the people ran wildly about, shouting "A Wendigo! A Wendigo! He has now slain his three." But Manandahwis called them to him, commanding silence.

"My children," he said. "Call this not the work of a Wendigo, but rather the work of the Geetchimanitou himself. He was wroth with them, and has smitten them. Let no man pity them, for they were steeped in wickedness. Let us therefore bury these unclean things out of our sight, that we may quickly forget them; besides, the bride is awaiting the bridegroom, therefore let us hasten lest she become impatient."

So the young men gathered up the remains of the ill-fated pair, and they buried them deep down in the ground, placing heavy stones upon them, lest they should escape, and wander upon the face of the earth, doing harm to the living. Therefore was Geetchinodin married to Winiwaya,



COOK AND COOKEF.



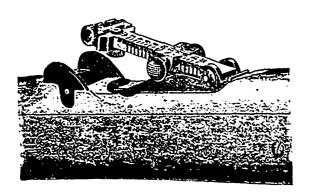
Lee-Enfield Service Rifle.



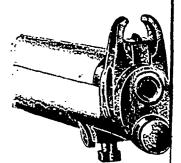
(1.) New Lee-Enfield.



(2.) New Lee-Enfield



Back Sight.



Fire Sight.

THE NEW SERVICE RIFLE.

whom he loved, and he became a great chief, for Kikendatch,s health had been so shattered by the terrible event of those three months that he pined awa, and died, and the people unanimously elected Geetch-inodin in his stead.

As for Kahna, the grand-daughter of Manandahwis, the spirit left her as suddenly as it had come to her, and she became a bright and happy girl, marrying in due time, and raising a large family, some of the descendants from which, occasionally possess that power of communication with the spirits, that their ancestress possessed.

During the summer following the events above related, a canoe manned by a strange people, with white skins, and with much hair upon their faces, came ashore at Matachuan. The Indians who first saw them were much frightened, but Geetchinodin showed no fear, and went down the river bank to meet them. When he did so, one of these strange men greeted him by name, and jumping ashore grasped him by the hand, saying in an unknown tongue:—

"What cheer my hearty. Did the blooming stuff work the oracle," or words to that effect, and Geetchinodin, apparently understanding the strangers tongue, answered with a grin: "Good; very good," at the same time pointing to Winiwaya, who stood beside him.

"By my life," said the stranger, "she was worth the trip, but say, have you fure, for we would buy them?"

And the result was that those men went away with their canoe loaded down with furs, so that it would hold no more, and they left behind them many curious things, so that the Indians marvelled, and believed that these strange people were indeed a race of conjurers.

Last summer, some tourists were passing Matachuan, and going ashore to take a meal, one of the party picked up a piece of iron, which they decided could be nothing but the fragment of an old-fashioned bomb, and they wondered how it got there, not knowing the history of Papegouche's ghost, or the Mystery of Matachuan.

Our Medicine Bag.

A copy of The Anglers' Guide to Eastern Canada, edited and published by Mr. E. T. D. Chambers of Quebec, has been received by Rod and Gun. This invaluable handbook is becoming more complete each year, and should be included in the outfit of every Canadian fisherman.

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In the White Mountains balsam has been observed as high as 5,500 feet and black spruce as high as 5,300 feet. They are dwarf specimens and produce hardly any seed but a recent investigation has established that these trees in these situations reproduce themselves by means of sprouts from the roots. This is apparently the first time that this fact has been noticed in connection with these species.

*

In the way of bass flies, there is no doubt that the Massassaga fly, designed by

our valued correspondent, Mr. Walter Greaves, Ottawa, is about the best bass fly for use in Canadian waters that we have. Mr. Greaves thinks they take it for a green frog. This may or may not be the case—only the bass could satisfy us on this point; but it is undeniable that in certain conditions of weather and water, the Massassaga takes better than the frog.

A correspondent writes fror Amyot, Ontario, a little station on the C.P.R. near White River. "There is good fishing and capi al hunting near here. Moose, caribou and near, not to mention partridge and duck, but I think the fishing is even better than the shooting. We have trout, dore and pike in Brick and neighboring lakes, and I have been promised 10,000 salmon trout by the government. Between North Bay and Lake Superior we have one of the

greatest stretches of virgin wilderness left, within easy striking distance of civilization?

The experiment of introducing the eastern quail, or bob-white, into the interior of British Columbia, has proved a splendid success. In March, 1899, the Ashcroft Gun Club imported nine dozen quail from Kansas, and turned them down. The dry, interior clumate has proved suitable, and at the present moment there is very good quail shooting in the neighborhood of Ashcroft, and the birds are increasing and extending their range with great rapidity. British Columbia is singularly fortunate in its climate, which seems to suit a greater number of species than does any other climate on this continent.

The new fishery regulations of the Province of Ontario contain a provision of considerable importance sportsmen. to Heretofore, one dozen bass have been alilowed to each rod; now the total legal catch is limited to eight. The size limit, ten inches, remains the same. The aggregate weight of brook trout that may be taken in one day must not exceed ten pounds, and no greater number than thirty, notwithstanding that these fish may weigh less than the ten pound limit. pickerel less than fifteen inches long may he basketed, nor may any mascalonge be taken and kept of less than thirty inches total length. The sale or export of speckled trout, black bass and mascalonge is prohibited for five years.

The June number of Bailey's Magazine of Sports and Pastimes has a seasonable air of cricket about it. Mr. P. F. Warner furnishes the subject of the portrait and biographical sketch. An article on "Cricket Reform" deals in a vigorous, practical vein with certain points of modern cricket. Mr. G. Stein writes on "The Horse and the Rider," and Mr. Carter Platts contributes a sympathetic article on Game-

A decided novelty in the way of a fish hook is the Live Bait Fish Hook, which is sold by the Franklm-Harvey Co., New Rochelle, N. Y., whose advertisement appears in this issue.

keepers of the old school. Borderer's paper on Polo Pony Breeding will appeal to lovers of the game. "Kennel Huntsmen" by Mr. G. S. Lowe, is very readable. A "Tribute" to the late Mr. Fred Gale by the Rev. Arthur Mursell, in which occurs a good story of Ruskin at the Oval; "A Dry Fly Purist's Advice to a Beginner"; "Sport with Beagles", together with other papers, complete a good number.

A correspondent asks for particulars of the poisonous purple tarkspur of the foothill country. The Purple Larkspur, one of the poisonous plants of the ranges, grows about a foot high, and has purplish-colored flowers. The poison, as in other plants of the same family, is located mainly in the root. It appears in early spring, after the snow is gone, and will be found in the foothill uplands in the greatest profusion, and along the brakes and hillsides of the plams. In many cases it will be found in the same location as Death Camas, and blooms and dies about the same time as The roots are tuberous, and this plant. may be found clustered only e short discance below the surface. Cattle appear to pull them up occasionally after rains, when the ground is soft, and sheep sometimes are believed to eat them to excess, where there is a heavy growth of the plants.

Almost identical in plan with the "Color Key to North American Birds" is "North American Birds' Eggs" by Chester A. Reed, just published by Doubleday Page & Company, New York. This work, of 356 pages, illustrates the eggs of nearly every species. North American bird, and will no doubt be much appreciated by many readers of this magazine. A working knowledge of ornithology is becoming more widely spread, but the number of sportsmen who could name a clutch of eggs is but a fraction of those that shoot. Except among collectors, few know the difference

The G. W. Cole Company, 141 Broadway, N.Y., will send to any one asking for the same a copy of "What the Big Guns in the Gun Business Say of 3 in 1." This little pamphlet contains testimonials from most of the more important firms manufacturing fire arms in the United States.

between the eggs of our most abundant species, yet, surely, the sportsman at least should know these that ugs? Everything about this book shows that work has not been spared, in fact, has been lavished upon its preparation. A delightful series of illustrations, from photographs, show many nests, and in the margin are clever thumbnail sketches of the birds themselves.

A volume on American Yachting, by that veteran yachting authority, W. P. Stevens. has just been issued by the Macmillans, as one of the series constituting the American Sportsman's Library. The author has set down a very full and complete record of yachting in the United States, and as such nothing but praise can be given his work, but there is room for yet another volume of the same series, upon construction, sailing, seamanship and navigation. Starting with early American yachts, the author follows the history of the "America Cup" struggles from the initial race in 1851 to the defeat of the latest Shamrock. The various designs of Burgess, Herreshoff, Watson and Fife, are discussed by Mr Stevens with his usual ability, the strong points of each being shown, and the defects also pointed out-for, alas, the per fect yacht has yet to be built. For Canadians, one of the most interesting chapters is that dealing with the Seawanhaka Cur. races on Lake St. Louis. Messrs. Duggan and Shearwood are given full credit for the novel ideas they have introduced in the

In a letter to Rod and Gun, Mr. J. E. Greiner Engineer Bridges and Buildings, Baltimore, Md., says:

successful Canadian defenders of the Cup.

A chapter on steam vachting in America

completes the book. The price is \$2.00.

"I notice in the June issue of "Rod and Gun in Canada", page 33, that you give an explanation of some of the game laws in

The H. H. Kiffe Co. of New York are famous purveyors of excellent tackle and gear at low prices—a combination rare enough as every sportsman knows. Send to their New York address, 523 Froadway, for one of the latest catalogues, and be convinced.

the Province of Quebec, in which it is stated that restrictions in the counties of Ottawa and Pontiac apply only to the territory of these counties, such as they were before the organization of the territories Abbitibi Mistassini and Ashuanipi. I have been endeavoring to obtain maps of Quebec, which will show these territories, and while I have succeeded in getting from the Crown Lands Department a very nice map of the exploration surveys of 1900, these maps do not show either the zones or the territories above referred to, and I have not been able to secure any maps which do show these territories.

As I am arranging for a party of six to make a canoeing and hunting trip in this territory. I will appreciate your kindness if you will assist me in obtaining a map which will show clearly where we can hunt during the month of September."

We must confess that we cannot reply to Mr. Greiner's question, but we hope that somebody who has made a life long study of the Quebec game laws will be able to do so.

After a long and tedious close season, the bass fishermen at length finds himself let loose from restraint and able, legally, to capture one of the most wily fish that swims-if the aforesaid fisherman be sufficiently astute. Of course it makes a great difference where you happen to do your fishing. Should you go to Timagaming and fish in Lady Evelyn Lake or in Obabika or in that chain, you can catch smallmouthed black bass with a spoon, or any other old thing, but if you should happen to do your fishing in the St. Lawrence, and wish to catch any of these old

Mr. Daniel Brown, of Thornton. R. I., is an inventor of much originality and merit. He first produced the "Hummer", a device for causing a full choke to spread and give a cylinder's pattern, and now be is bringing out a hair trigger for bolt-actioned rifles, that seems to have merit. He has been working for years upon the hair trigger, believing that fine telescope sight and careful chambering and boring are of little value without a delicate and light pull-off. Those interested should write to him.

socdolagers that haunt, for instance, the eddies caused by the abutments of the Victoria bridge, you must use live bait, and the thing the St. Lawrence bass loves mostly is :1 silver minnow about. tour inches in length, The troubte generally is 10 procure the silver minnow; the rest is easy. Certain persons have cornered the market on live minnows, and have bulled the prices to figures only within reach of the wealthy, vet the case is by no means hopeless, because anyone can procure one of those glass Orvis minnow traps, that look like an exaggerated demijohn, and which seduce any minnow that comes along into their glassy embrace.

Joking apart: This trap is worth a score of minnow seins and requires but little attention. We wonder that more are not used

ä

One of the Indian pupils of the McDougall Orphange at Morley was asked to make a collection of mountain sheep for a government museum. This was his reply:

Morley, Alberta, March 11th.

Dear Sir.-I am very glad to hear from you. I told you last time I wrote to you we have a bad colds and we will try to go when we get better, and sent you a letter to you when we shart to go. The snow is 2 foot deep here again other thing-don't be so hurried because I know myself the sheep are good yet and know they be going to be good longer. i think the snow is deeper than it here up at the mountains. if you going to sent an order to me its too far from here to mountains were they sheep, I think you have to sent me more than \$10 i don't mme to pay on the animals, i will not tell stories, i will do it when the snow getting little down. I know what was the worth of the animal the mare sheep lost \$35-little one \$10. I will ask you another thing you told us. was away to take with the railroad i would like to know where the railroad gos,

Messrs. Boyd & Son, of 1683 Notre Dame street, Montreal, have the celebrated Massassaga bass fly for sale, with and without jungle-cock cheeks. As the supply is limited, intending purchasers would do well to make a selection without loss of time.

where they going to make the railroad if you don't know ask Mrs. Tom, and tell me please i think she know.

yours truly,

Moses House.

write please the way i write because i dont onderstanded very well, i am tired writing letters for getting nothing i alway write for him for nothing, you know me befor you see me when you come to see him.

Libby House.

Rev. A E. Burke, the worthy vice-president of the Canadian Forestry Association for Prince Edward Island, takes every opportunity of keeping the advantages of forest growth before the public. In his presidential address before the Fruit Growers' Association of that province, he calls attention to the matter in the following words:—

"The question of protection is becoming more and more vital to horticulture here. We have discussed it in all its bearings, on previous occasions, and while there has certainly been an awakening in some quarters to the importance of preserving the remnant of woods we have left, and re-afforesting, the apathy of the general public has not by any means been totally shaken off. To grow fruit anywhere protection is a first necessity. Situated in the midst of a great storm-swept gulf, we are the most exposed community engaged in horticulture at all; and to be successful, must as quickly as possible replace our shelter belts and

Hardy Bros., proprietors of the London and North British Works, Almwick, are the largest rod and tackle manufacturers in England. Their 1904 catalogue (which they will forward upon receipt of a post office order for 1s-6d,) contains a great amount of information upon flies, hooks, rods, reels and lines.

The Hardy rod is renowned all over the world as being the ne plus ultra of achievement in that line. The Hardy Bros. have taken the American built up cane rod and have contrived a steel sinker for it, which makes it practically indestructible. Those preferring power to extreme lightness will undoubtedly like the Hardy rod better than the American rod. All correspondence cheerfully answered.

restore the necessary proportion between forest and field.

We have reached that stage in our provincial life, too, when the improvement and embellishment of our homes by means of trees and flowers, and their tasteful disposition, should engage our earnest attention, so that the healthfulness, fruitfulness, and loveliness of our Island home may be more and more in evidence. The members of this Association are especially pledged to forward this worthy purpose and it is to be hoped that their example may everywhere illumine the people."

The following statement is made by Mr. J. M. Macoun in regard to the tumber in the Upper Peace River District.--

Very little has been said about the forests of the Peace river country and from this fact it may be gathered that timber to be used for any other purposes than for house - logs and fence - rails is very scarce. There is quite enough spruce in the country to furnish lumber for housebuilding purposes, but it is scattered about among the poplar, often far from any stream that would float it to a mill and it will either have to be hauled to saw-mills or small portable mills must be moved about the country. To say that in the upper Peace River there is not more than 1,000,000 acres of prairie land is only another way of saying that what remains of that great area is covered with forest or has been so clothed within comparatively recent years. Unfortunately the country has been again and again swept by fire. until east of the mountains, there is now no considerable area of green timber left and what remains is chiefly poplar. Reference has been made in a few places to green spruce having been seen and these are the only places where it is to be found in other than the scantiest quantities. Careful enquiry among those who know the country between Dunvegan and St. John and between Grande Prairie and the Pinc and Peace Passes, confirmed the reports that practically the whole of the forest has been destroyed by fire. East of the mountains there is no white pine, though it is frequently stated that there is. What is in ignorance taken for it is jack pine, but even of this there is very little.

The American Natural History, issued by Doubleday, Page & Co., the author of which is Mr. W. T. Hornaday, director of the New York Zoological Gardens, is one of the most fascinating works that has come into our hands for a very long time. It is a comprehensive work, a thoroughly well illustrated work, and, moreover, it comes from the pen of a writer who knows his subject as few other men know it. Nearly every beast, and fowl, and fish that is known to science, as an inhabitant of the North American continent, is here described and all the commoner species are shown in the illustrations. One realizes what vast strides the science of natural history has made when one looks back to the books that had to suffice but a few years ago. Photography has helped largely, and the institution of zoological gardens. such as the one over which Mr. Hornaday so ably presides, have done still more toward giving us a greater and more intimate knowledge of the lower creation.

Using firearms does not necessarily mean to hunt game, kill and destroy. Target practice is a sport the fascinations of which are rapidly becoming more appreciated and can be enjoyed by young and old of either sex.

There are a number of excellent bowlers, golfers, tennis players, etc., among the fair sex—in fact, the masculine province of outdoor sport is more and more invaded by the athletic young lady of the period. It is a gratifying sign of the .mes that "hitting the buil's eye" at target practice is now claiming the attention of the outdoor

girl, and there is certainly no more beneficent sport or exercise.

"Looking for new worlds to conquer" and the persistent efforts made by the J. Stevens Arms and Tool Company, Chicopee Falls, Mass., makers of the famous Stevens Firearms, in advocating this delightful recreation, are main factors for the extraordinary interest among the fair sex in target shooting. To he properly equipped means the adoption of Stevens rifles and pistols—these arms hold more records than all other makes combined, and cost no more.

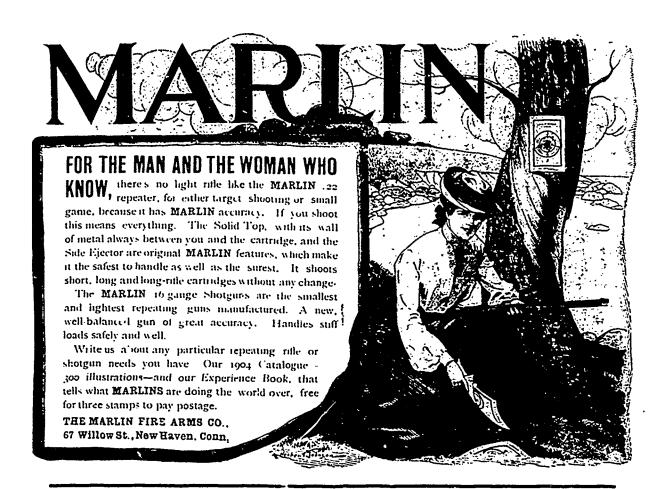
The ordinary natural history, dealing as it does with the animals of the whole world must necessarily be a mere sketch, but in the present instance the self imposed limitation of his task has enabled the author to deal with his subject in an unusually comprehensive way. As an instance in point, the chapter dealing with the wild sheep of the continent may be has already Mr Hornaday mentioned published a monograph of the wild sheep, and has made an especially profound study of the characteristics of the various species. In fact, there is no living naturalist with a better working knowledge of these consequently, Mr. animals, interesting Hornaday has been able to give us an unusually valuable contribution upon the wild sheep of this continent. Dalls' white mountain sheep, Stones' darker colored animal, Fannin's queerly marked species, and the great, lordly-headed type animal from the country about the head of the North Saskatchewan, are all admirably described and illustrated.

And so with many other species; hence we feel justified in saying that no work on North American natural history is more worthy of a place on the shelves of the sportsman naturalist than the one under review. The 'book issued from the press of Chas, Scribner's Sons, New York.



The Bench Show committee of the Toronto Exhibition have claimed the dates of September 5th to 10th for their show this year, and it is their intention to make it a record-breaker as far as Canada is concerned, at any rate. Canadian Kennel Club rules will govern. In response to a circular letter sent out by the chairman John G. Kent, asking for suggestions from exhibitors as to how the show might be improved, a great many good ones have been received, and a number of them will he acted upon, so that some quite new features may be looked for. The committee has been broadened out quite a bit and all the prominent breeds have a well-known fancier representing them, so that no breed will be exploited at the expense of the others. A number of new classes have been added and the prize list augmented to the extent of two or three hundred dollars,

and a novel feature will be the Green Class, which is intended for new beginners. (No dog which has ever won a first, ond or third prize, or whose owner has ever won a first, second or third prize with any dog owned by him or her at any recognized show, can compete.) This should be a very popular class with many "onedog" owners. The committee is to be congratulated upon having the honor of in-Goducing to the American public two very celebrated English judges, Mr. Desmond O'Connell and Mr. M. Maxwell. Mr. O'Connell is one of the oldest fanciers in England at the present day, a member of the English Kennel Club Committee, a judge sought after by the best English shows, and a breeder of great reputation. Mr. Maxwell also holds a very high place in the esteem of the English fancy and is sure to make a reputation for himself on this side of the water amongst those who do not know him by name already. Their classes have not yet been finally decided, but Mr. O'Connell will probably take Smooth, Fox and Welsh Terriers, while Mr. Maxwell will take Wire-haired Fox Terriers and a number of the breeds usually taken by an all-round judge. For Sporting Spaniels Mr. L. Farewell of Toronto has been induced to enter the ring for the first time. This fact will be hailed with delight by the "cocker" men, as Mr. Farewell is a gentleman of continental repute, both as breeder and exhibitor, and has the eye that can quickly pick out the best. committee feel flattered to think that he has honored them by consenting to judge, as, though asked by many show committees on the other side to act in this capacity, he has always refused. It is safe to say that this feature alone of the Bench Show will be worth travelling a long way to see, as, from present indications, the largest entry of Cockers that the world ever saw will be at Toronto in 1904. The ever popular Mr. W. P. Fraser of "Matchmaker" fame, will take the Irish and Scot-Terriers, and Dr. C. Y. Ford, of Kingston, collies, old English sheep dogs, etc. To this list have yet to be added one or two names for some special breeds. A new feature will be the Collie trials for sheen penning, which will be an attraction on educational lines for the young farmer.



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Communications on all topics pertaining to fishing, shooting, canceing, 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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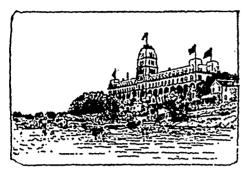
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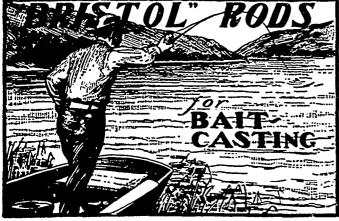
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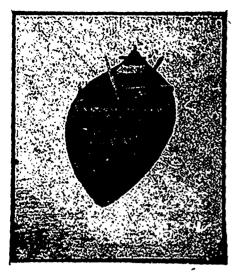
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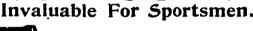
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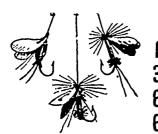
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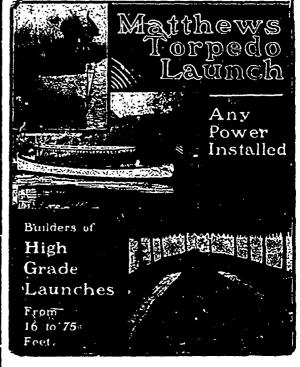
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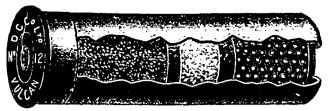
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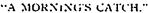
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Fig. 2.



Fig. 3.

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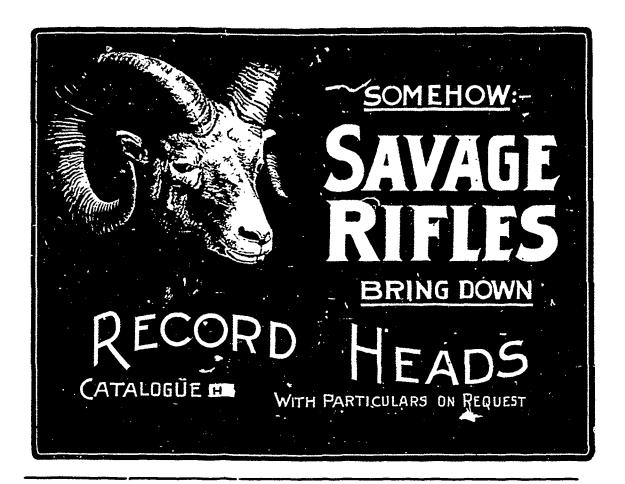


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