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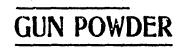
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ENGLISHMEN SAY

Powder can be bought in Canada as good as ever put in 4 gun. It has a positive advantage over home make, the dirt is soft.—J. J. W. in London Field.

AMERICANS SAY

The finer English or American Powder and Cana-dian "Caribou," I am quite familiar with. They give so little recoil that one may shoot all day without bruised shoulder or headache.—Forest and Stream.

CANADIANS ABROAD SAY

Can you send over some Trap? I don't mean to flatter but it is a head of anything we get here.— A. W. W., Batavia, N. Y.









MONTREAL, NOVEMBER, 1902

No. 6

A Mixed Bag.*

BY L. H. SMITH

(Author of "A Sportsman's Taxidermy and Photography," etc.)

It was on a fine November morning that M—— and I, with a brace of setters in the buggy, started out for a day's shooting.

An hour's drive over a good road brought us to our destination, a farmer friend's, at whose place we always put up when we shoot in that neighborhood.

Willie, the farmer's son, with schoolbag strapped on his shoulder, was starting out for school, but on seeing us turned back and opened the gate to let us drive in. He greeted us:

"Good morning. We expected you last week. There are lots of quail, and nobody has been here shooting. Awful sorry I can't go with you. Our exams are on at school and I am trying for the fourth book. Dare not miss a day."

"That's right, Willie, stick to your lessons, you can have plenty hunting Saturdays and holidays. Where have you seen birds?"

"Well, you know where the old slashing was last fall where you got so many?"

"Yes."

"Well, last spring father cleared that all up and put in a piece of buckwheat and a patch of millet. There are two bevies there. I put one of them up last night when I was bringing the cows in from the wheat stubble. There must be more than twenty in it. Big fellows. Then you know Mr. Ray's willow swale, where you shot the woodcock, there is a bevy stay around there somewhere. I

* Illustrated from the author's photographs.

did not see them, but I saw where they had been roosting. You'll find them. I saw a woodcock there. I must hurry now or I'll be late, but if I am, the ma'am won't say anything, she boards at our place and is real nice."

"Don't stay longer, Willie, you hurry to school. We can put the horse away. Give him a drink and a feed at noon, and we will see you in the evening."

"All right, I'll attend to him. Goodbye. I hope you will have as good luck as you had last time."

"Thanks, Willie. It's going to be a fine day. I think we shall make a good bag."

With this hurried conversation Willie started off on the run for school. After putting our horse in the stable, we started out, heading for the buckwheat and millet scubbles, with Belle and Bristol, which were our brace to-day, close at heel.

It was past nine o'clock. The sun high up would have been dazzlingly bright, but it was filtering through that peculiar smoky haze which makes our lovely "Indian summer."

What a delightful morning ! What a day we were promised ! Is there any weather in any part of the world, to be out-of-doors in, which is so bewitching as our Indian summer ?

We cast off the dogs in a good wheat stubble which adjoined the millet patch, M—— working Belle, whilst Bristol looked to me for orders. M—— cast

Belle off to the left and I waved Bristol to the opposite direction. After two or three casts Belle hauled up and commenced roading a running bevy, and soon stiffened on a staunch point. It was a little time before Bristol made his sweep in that direction, when at about fifty yards he caught sight of her and backed instantly. We walked up leisurely and flushed the birds, a grand bevy. M—— made a right and left. I missed my first bird, but scored with my second shot. Too quick, Too quick with my first barrel, and yet how often we do it. We marked the birds down in the bush, and after gathering our three birds, started after them. Our dogs did us some good work on the scattered birds, except that Bristol stole one of Belle's points, for doing which he received a few clips of the whip. We bagged five more, and a rabbit which scudded out of a brush-pile which we were shaking up for quail, found a resting place in our game bag.

We next started for the woodcock swale where Willie said he saw signs of a roosting bevy. We beat it thoroughly and flüshed three cock, which we bagged after using three cartridges on the last What a bird a late fall woodcock one. is! Full feathered, fat and lazy. Living high and basking in the midday sun; ready to start south on the first night the atmosphere changes and sends the thermometer so far below the freezing point that the black, soft muck, in which he delights to bore, has a crust formed on it too hard to be pierced by his long and sensitive bill.

We spent considerable time in hunting for the beyv, which we saw for ourselves had been making its lodgings in the swale. We were nearly giving it up when Bristol, away off, began showing signs of birds having been running where he was, The scent was cold, and evidently it had been some time since they had been there. Belle, going over to him, took up the faint scent, but neither dog could make anything out of We then cast them over into the it. next field, an oat stubble, not a very likely place to find birds. Presently Bristol caught up a hotter scent, and commenced roading down the weedgrown fence which he crossed at the end

of the field, into an old chopping. Catching up the scent again, and trailing on over logs and around old rotten brush piles. M—— keeping Belle at heel, allowing my dog to finish the work he had commenced, and was now doing so well. Presently he came to a staunch point at a small bushy second-growth patch into which the bird's had ran probably on hearing us following on their trail.

Flushing the bevy, we each bagged one. The birds flew to good cover, partially grown up neglected pasture, patches of withered golden rod and stunted scrub, covering the ground. We did some bad shooting here, but before we gave them up had added five more to our bag, making seven out of this bevy, and another cotton tail.

Two rabbits, three cock and fifteen quail. The bag was getting heavy, and as we intended coming back, somewhere near this place, we laid our game by the side of an old log and covered it safely with weeds and dried grass. I know of nothing I dislike to carry so much as rabbits. There is no game that goes into the bag that is such a dead lump as a rabbit.

It was now getting near noon and we knew the quail would be laying up, scratching and sunning themselves in some nook or weed patch with a southern aspect, and would be hard to find. There was a nice piece of partridge bush some distance on, and as it laid in the direction we were hunting, we intended taking it in. Knowing that the noon hour is as good for partridge, ruffed grouse, as any other time in the day, we started for it. We hunted the likely spots on the way, where Bob White and family might be spending their noontide, but found none.

It was past noon when we got to the bush, and selecting a log to sit on, which was lying in a sunny glade, we halted for our lunch.

Every sportsman knows what a pleasant hour this is. Especially so i' it be on such a lovely day as I am now describing. The pleasure is enhanced by the good shooting you are having and the goodly number of birds already in the bag, the result of the morning's work. "A lunch in the bush." To all lovers of "out-of-doors" it means much, to the sportsman it means something he cannot convey to another on paper.

The day was so charming, we loitered more time away at our noon hour than we should have done. The lazy, hazy Indian summer atmosphere acted on us like an opiate, and made us almost loath to leave the pretty spot we had selected where to take our meal.

The partridge bush was our n ground. Walking abreast, as nearly as we could, and about fifty yards apart, making the dogs work close in front of us, we beat the ground carefully. One, then another, cunning old cock, prowling about alone, flushed wild on us, and we got nothing from our dogs for some time. Presently Belle flew into a point and two birds rose. M---- rolled one over whilst the other went off unshot at. Quite a time passed before I had a chance. A bird at some distance to my right flushed of his own accord. Turning quickly, and making a good shot, I brought him down. On ordering Bristol to retrieve him I found he was a runner. The dog trailed him for fifty yards or more to where he had taken to a hole by the side of an old decayed log, an arm's length to reach him. What runners and hiders they are sometimes when wingtipped ! Another bird bagged by M----, over a staunch point, was our toll from the partridge bush.

It was now 2.30 p.m., and we started beating again for quail. A very likely piece of ground with good feed, and good cover near by, and where we found birds last year, did not reward us to-day.

Presently we came on a piece of millet which had been sown on new ground, among the decaying stumps, and left uncut. If there is any one thing that quail love to eat more than anything else, it is millet Belle flushed a good beyy here. She hauled up as if she were shot but had run into the birds before she caught their scent. They took to the partridge bush and gave us a poor chance. We bagged only three and had to give them up.

The afternoon was wearing on. It was 3.30, and we held "a consultation of war."

" What shall we do?"

"Well, we are more than a mile from our starting place. We will turn back. We will take in that little swamp out in the field a little north of our route, a cock sometimes lies in it, and it will not be much out of our way. If we don't find a beyy around there, we will head for the buckwheat and millet where we found the first beyy in the morning. Willie says there is another beyy there, and we should be able to find it thus evening."

In the willow swamp Bristol made a staunch point. "Look out," and up got a partridge. No shot for me, but M----, being in a good position, brought him down. Just then another cotton tail started out of her form in the grass at my feet, and I stopped ber. There was no good feeding ground near, so we spent no time looking for quail but struck a line to where we had hid our game. After picking it up, we continued in the direction of our first shoot in the morning. Passing over the ground where we had our second beyy, Bristol came to a point and three birds got up. Two barrels gave me only one bird, and no excuse whatever why I did not kill two.

It was 4.30 when we arrived on our early morning ground, and about for tyfive minutes was all the time we had to make any addition to our, already, nice bag. Luck favored us. The dogs slashing across the buckwheat stubble almost simultaneously flew into a point, and we had Willie's second beyy. On rising, we each took one bird, and hurried after the beyy. They did not go to the best of cover. The bush they flew to was too open with too little underbrush.

But evening was coming on and the birds commenced to run and call, and our dogs were soon toading and pointing them outside and in better cover, and doing the best work perhaps they had done all day, and we had a few minutes of fine sport. We did not shoot till dark, but quit to give the remnant of the beyy time to get together to go to roost. Eight of that little family were missing at "Roll Call" that night.

Willie, hearing us shooting, ran across the fields and joined us, and was delighted at our good luck. When we started for the barn he insisted on carrying the bag which contained the most game.

Assisted by Willie, a few minutes sufficed to hitch up, and, refusing his father's pressing invitation to stay to supper, with dogs and everything snugly aboard, we drove out of the yard just as the full moon was rising to light us on our way home.

After supper we smoothed and spread out our game. Twenty-seven quail, four partridge, three cock and three rabbits. Thirty-seven head of four different varieties.

Sitting by the cheerful grate fire, where our dogs were toasting their noses and enjoying a half-hour before being put in their kennel, we talked over our day's sport and concluded that "A Mixed Bag" on an Indian summer day was the best of all shooting.



Official Rules of the M.R.C.

At a meeting held by the committee of the Montreal Revolver Club the following official rules were drawn up and adopted for the guidance of all competitions in future :---

M. A. A. A. REVOLVER CLUB.

RULES AND REGULATIONS.

In handling a revolver always treat it as though it were loaded.

ARMS.

No. 1. Any revolver having a minimum calibre of .22 or a maximum calibre of .45 may be used in all matches of the club, provided the length of the barrel does not exceed 8 inches, and the weight $2\frac{34}{2}$ pounds, unless otherwise specially provided for.

(For the present the committee reserves to itself the right to make special rules in regard to the arm and ammunition to be used in the indoor competitions and practices, which members will be notified of in due course.)

TRIGGER PULL.

No. 2. The minimum trigger shall be $2\frac{1}{2}$ pounds, and shall be determined by a test weight being applied to the trigger one-quarter of an inch from the point, when the arm is at full cock.

SIGHTS.

No. 3. Only open sights are allowed. The foresight may be a bead, or of a plain barley-corn pattern. The rear sight may be adjustable for windage and elevation, but must be capable of being firmly clamped in such position.

Sights may be blacked, smoked or painted white at the option of the marks-

man. No aperture or peep sights allowed, and the rear sight must be in front of the hammer.

AMMUNITION.

No. 4. Any fixed ammunition may be used, provided the same is not of a dangerous character.

DISTANCE.

No. 5. The open air practice and competitions shall be held as convenient, on a range where the firing point is clearly defined and free from any shelter or wind screen whatsoever. The distance shall be 25 yards from the target to the firing point. Competitors must stand at the firing point, directly opposite to the target on which they are firing.

The indoor practices and competitions shall be held on a range as may be most convenient to the committee, and, if possible, shall not be less than 20 yards long from the target to the firing point.

TARGETS.

No. 6. In the open air practices and competitions M. A. A. A. standard revolver target shall be used, having a black bull's eye, divided into two values, 7 and 6, and the rings and values shall be as below mentioned :

7-ring bull—134 inches in diameter.

6-ring bull-23/4 inches in diameter.

5-ring white--4 inches in diameter.

4-ring white -55% inches in diameter.

3-ring white-676 inches in diameter.

2-ring white-9¼ inches in diameter.

1-ring white—125% inches in diameter. The steel targets provided at the club

ranges are for practice only, and no

scores made on them will be accepted for record, unless specially provided for by the committee.

In the indoor practices and competitions the target used shall be the standard American revolver target, having a black bull's eye $2\frac{3}{4}$ inches in diameter, divided into three values, 10, 9, 8, as below mentioned :

10-ring—118 inches in diameter.

9-ring—178 inches in diameter.

8-ring $-2^{3}4$ inches in diameter.

7-ring $-3^{3}4$ inches in diameter.

6-ring—5 inches in diameter.

5-ring-65% inches in diameter.

POSITION.

No. 7. The position in all practices and competitions shall be standing, free from any support, the revolver being held in one hand with arm extended so as to be free from the body.

LOADING, FIRING AND CLEANING.

No. 8. The revolver must be loaded at the firing point only, and, until empty, must bb pointed towards the target or held in a vertical position. The arm must be examined by opening the breech before a competitor leaves the firing point. The arm must be loaded to its fullest capacity is all competitions and must not be used as a single loader. No allowance shall be made for a mis-fire or a hang-fire in which the bullet comes out of the barrel.

Cleaning shall only be allowed between strings of six shots, unless otherwise specially provided for.

 N_{ℓ} unnecessary talking shall be done by a competitor at the firing point. Blowing through the barrel of the revolver at the firing point is not allowed.

MARKING AND SCORING.

No. 9. In all matches a new paper target shall be furnished to each competitor and not more than ten shots are to be fired on one target at 20 yards, and not more than twelve shots per barget at 25 yards.

Shots touching a line or within the line shall be scored the value of that line. The eye alone shall determine whether a shot touches a line or not. Shots shall not be signalled, but may be spotted from the firing point, provided no time is lost by the marksman. The value of a score shall be computed by entering the value of each shot commencing with the shot of lowest value.

THES.

No. 10. Ties shall be decided as follows:

(a) By the fewest number of shots of lowest count.

(b) By firing one string under the same conditions as the match.

(c) By any special rules governing the competition.

TIME LIMIT

No. 11. The time limit for a string of six shots is three minutes, unless specially provided for.

PENALTIES.

No. 12. It shall be the duty of all officials of the club to caution any member observed infringing any of the rules and upon a repetition of the offence the officer of the day is empowered to debar the offender from further use of the range for the day, and his score shall also be disallowed.

Certification a second

A Montreal sportsman, whom we will call Jones—just simply Jones—owns a remarkably intelligent pointer. There would be nothing wonderful in this, seeing that nearly all shooting men own, or have owned at some time, the '' best dog on earth,'' but the marvel is as follows : Jones and a friend were trying a cover for mythical '' pattridge,'' and after drawing it blank, Sancho Panza (that is the way he is designated in the bench show catalogue, though his kennel name is Boz) after some lively roading, came to a staunch point on the edge of a railway track. The guns walked steadily forward, finger on trigger; but nothing got up. Finally, Jones walked up to the dog, now trembling with controlled excitement, and after a short search, his eye lit upon the prize a large, well preserved, lump of anthracite. N.B. — This dog is not for sale.

A Big Game Preserve.

BY ST. CROIN.

Geographers of an older generation used to get out of their difficulties by writing the word "desert" across the faces of their maps, whenever they had insufficient information about the regions they were endeavoring to represent. Unconsciously we have adopted their methods with regard to Canadian game lands. It is very generally supposed that large areas of this Dominion are rocky, inhospitable wastes, where, though they may contain a good many small fur-bearing animals, there is no great abundance of big game, and one, in particular, of the regions that has been dismissed by many writers as almost valueless, is the great tract of country lying between Mattawa and Heron Bay, Lake Superior. I, myself, until comparatively recently, thought this might be the case, for it was just possible that the climate might be so bleak and forbidding that moose, deer and even caribou and bear, might have abandoned it for some more hospitable region. But now I know better. This district throughout its entire length and breadth is a vast game preserve—in some parts, of course, the hunter finds game more abundant than in others, but, taken by and large, it is very well stocked with the four species that go to make up our list of eastern big game.

North Bay is the first point worth making a headquarters of. Here there are a couple of good hotels, whose rates are but two dollars a day, and there are numerous outfitters, so that all the necessaries of life may be procured; moreover, prices are reasonable. North Bay is on the great Lake Nipissing, the west arm of which is a most excellent hunting ground. There are bear, deer and moose, and the fishing is fully equal to the shooting, for mascalunge, grey trout, pike, black bass and doré may be taken by any angler worthy of the name.

The climate of this region is very delightful; the thermometer rarely reaches eighty degrees in the shade, and the nights are invariably cool.

The French River, which is the discharge of Lake Nipissing into Georgian Bay, is perhaps the best water for mascalunge of them all. Brook trout are found in Trout Lake (3 miles), in Anderson Lake (18 miles), in Otter Lake (8 miles), the North River (10 miles), and Four Mile Creek (6 miles). The livery stable keepers charge \$4.00 a day for double rigs, but they would very possibly make reductions to those using one several days in succession. Of course, the big game hunting is not done from a rig, but from a canoe, and conveyances are only needed by the grouse shooter and the fisherman.

The trout caugit in these waters are not large. The biggest I saw measured bat seventeen inches, and the average is not over ten inches, but they are bright and beautiful, and game to the back bone. There is wonderfully good duck shooting on the West Arm. Late in the fall, the mascalunge fishing along the north shore of the lake is equally good.

Sudbury is most famous for its nickel mines than for the sport yielded by the neighboring forests; nevertheless, the local men seem to get a good deal of game and fish, so that it is more than probable any sportsman would be able to do well if making his headquarters here. The Balmoral is a fine hotel, and the American House is another good stopping The Onaping Hunt Club, of place. Sudbury, is composed of residents who do more or less deer shooting in the fall. Last year they found an unusual number of deer west of Sudbury, and this abundance was thought to be caused by the increase of wolves on the French None of these beasts have been River. seen around Sudbury, though a few have found their way to Wahnapitae.

Thirty miles west of Sudbury, about Onaping Lake and through the Vermilion River, there are plenty of deer and some bear and moose. It may be remarked in passing that most of the maps of this region are very unreliable. Cartier would make a pretty good headquarters, but

not so good as Biscotasing. This little backwoods station is delightfully situated, for from here canoe routes diverge in many directions, and there are Indians to be had who know the country. and who can generally show sport. A canoe voyage from Biscotasing to Dayton, on Georgian Bay, will be found an This is known as the enjoyable one. Missasauga trip, and six days would be occupied in going over from Biscotasing to Dayton, though it might take three weeks coming back again were it necessary so to do, which of course would not be the case, as the return to Biscotasing could always be made by jumping on the cars at Dayton and riding back to the starting point by way of Sudbury. The country is burnt for twenty miles from Biscotasing, but after that is green. The divide into Georgian Bay is thirty miles south of Biscotasing.

Mr. J. E. T. Armstrong, the Hudson Bay officer in charge at Biscotasing, will be only too glad to answer any questions as to this region.

The game of the district consists of moose, caribou, deer and bear, and there are, of course, partridge, duck and rabbits for the pot. Few bear are shot, though Mr. Armstrong generally takes over a hundred skins in trade; these, of course, have been trapped.

West of Biscotasing, deer becomes scarcer, and there is a very evident change for the worse in the climate. This year the hay was not ripe until August the 15th, and some of the birches were beginning to turn color on the 6th of August. The deer in these regions weigh from 225 to 250 pounds, though one buck was killed last autumn which weighed 305 pounds.

Missanabie, where there is another Hudson Bay post, in charge of Mr. S. A King, is, perhaps, the best point in the district from which to start after big game or fish. Brunswick House is fifty

miles north of this post, and between the two there are thousands of square miles of magnificent moose grounds. There are not so many deer here as further east, but there are moose, and caribou and many bear. It may be added, however, that deer are said to be increasing, and that wolves are very scarce, if indeed they exist. The portage to James Bay is nine miles east of Missanabie station. Dog Lake is a fine body of water, and between it and Monitouwoc there is, occasionally, very good fishing for speckled trout. There is a tug on the lake, and for a small sum fishermen and hunters are transported to the beginning of the rapids, where the trout lie. Some of my trout weighed 234 pounds, but they are often caught 5 pounds in weight. I have never seen such sporting doré as those that are found in these rapids. They take the fly even better than do the trout, and a doré of two pounds weight in a rapid will test a light fly rod almost to the breaking point.

From Missanabie to Lake Superior there is a great deal of good caribou ground, and there are several waters where trout may be taken by the enterprising ishermen. Some of those that have a good local reputation are the Cahganogaming, Waubashene, Little Jackfish, McVey Creek, Amyot Lake and the White River.

Throughout all this region the canoe is as indispensable as the pack pony in the mountains. In winter the natives travel tremendous distances by dog team, but in summer they always journey by water. There is plenty of game, but unless you secure the services of a trustworthy Indian hunter you will not be likely to see much of it. Few parts of this continent are blessed with so perfect a summer climate, and this adds very greatly to the pleasure of an outing in the region I have so briefly described.



Fly Fishing for Black Bass.

BY WALTER GREAVES, OTTAWA.

It seems to me from what I can gather from both fly and bait fishermen I meet in different parts of the country that an article on the above subject might prove interesting and instructive to a number of your subscribers.

When speaking to friends and others about fishing for bass I always ask whether they use flies or bait. The answer usually is "bait : the bass will not take the fly in such and such lake." It generally turns out that they either do not use the right kind of fly in the right manner, or they do not fish in the right places and at the proper time of the day. I am inclined to think that bass will take the fly in almost any water if fished for properly and in the right depth of water; at least that is my experience, and I have fished for them in various waters and caught many hundreds of them with the flv.

At the beginning of the season (15th June) fish in shallow water near the shore, casting well up under the bushes. The bass lie there protecting their young, I think. Use large gaudy flies: Parmachene Belle, Professor, Grizzly King, Light Montreal and my Massassaga (which is killing at any time of the year, being taken I think for a green frog), dressed on hook No. 1, old scale. As the season advances, say by the middle of July, they begin to roam about and seek deeper water, when one should cast out from the shore towards the reefs and boulders, still using gaudy flies. The proper hours for fly fishing up to this time are early in the morning and up to

about 5 or 6 p.m. Sometimes they rise well in the evening. You may, however, rest during the middle of the day, as they seldom take well at that time. There are days also when bass will not rise at the fly, but one must not be discouraged at this, for the same applie to every other game fish.

During the end of July, August and September, you will catch them about the shoals, reefs or bars where the water is not too deep, say from 4 to 8 feet. An excellent method is to troll slowly with a long line, using the large gaudy flies before mentioned and the Dark Montreal, Lord Baltimore, Polka, Silver Doctor, Zulu, &c. I prefer moving about and casting to this method, but the latter is sure to account for some large fish. In casting one must keep moving about m order to meet with success. Of course, if you come across a place where the bass seem plentiful, stop there some time. One might, however, as well cast on land, as expect bass to rise in 30 or 40 feet of water. Follow my suggestions and let us know the result. I am not addressing anglers who know how to fly fish for bass, but those who are auxious to learn something about the exciting sport of catching black bass with the fly. I could offer many more suggestions, but do not wish to make this article too long or tedious.

[Our correspondent sends us a pattern "Massassaga," dressed as follows : tail, scarlet swan ; body, green tinsel, hackle, yellow; wing, guineafowl, stained yellow, head, scarlet wool.—ED.]

Ceccario Ceccario

The bull dog fly, which in appearance is a glorified housefly, and in disposition a perfect hornet, is a great pest for about two months, to those travelling with pack trains in the Rockies. Few of the packers seem to know that there is an almost certain shield from its attacks, and that the substance that grants immunity is nothing more than the common fish oil, which is to be had in British Columbia at so reasonable a price. The oil is extracted from the dog fish, which swarm in the Pacific, and a little of it smeared over the coats of the ponies is an almost effectual preventive.



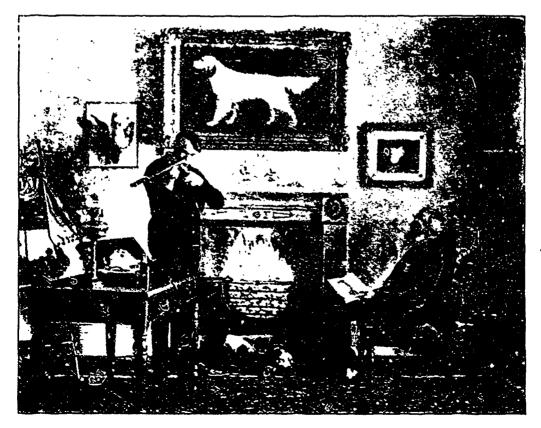
STARTING OUT. A day's covert shooting when the leaves are down is a delight. (ny 1... u. SMITH)



LUNCH. There is no tonic like shooting—and hunger is the best sauce, (nv 2, 0, SMITH)



A SHOT IN COVERT. And in this instance the odds are on the gun by 1/0/859170



AFTER SUPPER. They clean the gens, and talk over the day's sport. BY L. H. SMITH)

Chats About Driving.

BY "MEADOWBROOK."

DRIVING DOUBLE.

A pair well broken to their work are as easy to drive as a single horse, but with green or restive horses it is quite another matter.

In putting to, adopt the following method: With harness on and traces crossed over the back, each horse is led out of the stable by the nose band, not the rein or bit. Bring the horses carefully to the pole, without allowing them to touch either pole or bar, and fasten the hooks of the pole chains into the kidney links of the harness. Next attach the outside traces to the roller bolts or whiffletrees, and fasten the inner traces. Should one horse be a kicker, put him in first. Reverse the process when taking out. Don't pole too tightly.

On the correct adjustment of the coupling reins much depends. They should be so fitted that both horses go straight and pull evenly on the traces. Coupling reins are generally too tight, so that the horses carry their heads in toward the pole, instead of going straight. It is convenient to have more than one hole in the bill_ts for buckling the reins on the bits, to allow of changes withou altering the coupling reins.

Bearing reins are of decided service in town, but are usually not desirable on long journeys.

TANDEM DRIVING.

Tandem has been described as "making two horses do the work of one," but while this may be partly true in a flat country, it is false as regards a hilly one. At any rate there is no end of fun to be had with a tandem cart and team.

Choose a comparatively light cart, with straight shafts, and make the wheeler draw it, having the leader to depend upon in going up hill.

Tandem is a fine introduction to driving a coach, but don't believe anyone who says it is more difficult than the latter; experience teaches the reverse.

Catching the thong is a knack, and one that has never been picked up by mere reading; ten minutes with a master

will give the idea, and then practice will make perfect. It will be found that if a few of the knots have been left long on the whip stick, they will materially aid the beginner.

In using the whip "flicking" should be avoided. When the leader requires hitting, hit him under the trace and at the full extent of the thong. By practising hitting the leader on the near side, the learner will be helping his four-inhand driving. To do so neatly, turn the hand over and keep the top of the stick low, raising the right elbow and dropping the right wrist.

There are three ways of attaching the leader to his companion : (1) Bars. (2) To wheeler's traces by spring hooks or "cockeyes." (3) By a continuous trace. Each method has its advocates, but perhaps the second is the best, as it is the simplest and works well, if care be taken in turning corners not to let the leader throw the wheeler down.

Most tandems are too straggling, and some of the daylight between the leader and the wheeler might be dispersed with to advantage. The nearer the horses are brought to their work the better.

Breeching should be used in a hilly country.

The near leading rein passes over the top of the forefinger of the left hand; the off leading rein between the fore and second fingers; the near wheel rein lies underneath it, and between the same two fingers ; the off wheel rein passes between the second and third fingers. When mounting the cart the reins are held in the right hand, and on gaining the seat are transferred to the left. It is as well to separate the wheel reins with the third finger of the right hand while mounting, as a precaution, for if the horses should try to turn any particular rein would be more easily found.

Before starting, shorten the leader's reins and make the wheeler start the cart; on the flat the leader is merely for show, and if the wheeler's collar is pulled forward in the least, the leader is doing more work than he ought. He need not take hold of his collar until a hill is encountered.

Corners require a good deal of care. The leader must be taken off draught, and in turning, say, to the left, put out the right hand, catch the leading rein, . and loop it under the thumb. This of course shortens the left leading rein, and brings the leader round to the left. As soon as the leader feels the effect of the loop, he will come round, and the right hand may be required on his off rein to prevent his doing so too quickly, and will in any case be wanted on the off wheeler's reins for a second or two. As soon as the team is straight, raise the left thumb.

"Finger tip" driving is the mark of a beginner. The reins should be well "home" between the fingers, and this is best insured by slightly bending the wrist.

"Palm" the whip, allowing it to rest against the thumb.

Remember it has been said, "A bad leader is master of the situation;" consequently to avoid mortification, shun "a bad leader." A kicker or balky horse is inadmissible as a leader.

As regards size, the leader may be as high at the withers as the wheeler, but should weigh less and be of lighter build.

A rather wide cart should be chosen, and the tandem is not complete without rugs, nosebag, halter, stick basket, horn, lamps, clock, and tool box, the last containing pick, hammer, leather punch, pocket knife and matches.

The tandem whip thong should be ten feet in length, and the stick to the quill five feet.

Ceccaro Correspond

The National Park.

BY TOM WILSON.

The points of interest as yet unvisited in the Rocky Mountain National Park are many. Even within the boundaries of the old park there are many nooks and corners that have never been seen by white men, and now that the park has been so vastly increased in size, it will be many years before its glorious peaks, passes and valleys shall have become familiar.

One of the pleasantest excursions to be made from Banff is that to Devil's Lake, in which, by the bye, there is occasionally very good fishing. One passes the "Mountain where the water falls," which is the Indian name for Cascade Mountain, and here a beautiful little prairie has been fenced in, that holds buffalo, elk, antelope and goat. Those who know the history of these ranges since the days of the first explorers, are almost forced to rein in their ponies, and muse upon the changes that have taken place since those early days when the Rev. Robert Rundle killed wild buffaloes at this very spot. But this was more than fifty years ago, and now the missionary has also passed away, though his name will endure for all time through the thoughtfulness of Dr. Hector, of the Palliser Expedition, who named a nearby mountain after the man of God.

Two miles and a half from the wharf at the Devil's Lake-this water is 12 miles long—a fine trail much used by Indian hunting parties, crosses a high divide into the valley of the Middle Fork of the Dead Man's River. I know of few finer views than that which is to be had from the summit of this pass; moreover, within the purview of the onlooker there should be a small glacier close to the base of Mount Aylmer, 10,300 feet, the highest mountain in the old park, and to the south, benches stretch away tier upon tier as far as vision may reach. These upland meadows are carpeted with alpine flowers, and are, truly, a paradise for the botanist. Following this trail for nine miles one passes through heavy, green timber, until arriving at The Gap, leading to the eastern -nd of Devil's Lake. Close by, the bed c the Ghost River is higher than the

valley of the pass, and a very little engineering would turn this river into the lake, as no doubt it once flowed, for the work of an ancient glacier, which piled up a moraine, forced the river to flow eastward down its present channel. This it does not do without a protest, however, for, excepting during the spring freshets, it shortly disappears under ground and flows as a subterranean stream for five miles before emerging into daylight.

Resuming our journey from The Gap towards Devil's Lake, we pass, for five miles, through a valley whose width does not exceed eight hundred yards, and which is bounded by perpendicular cliffs between 3,000 and 4,000 ft. in height. On arriving at the lake, a little gulch may be noticed, which would be an interesting place for the geologist, as the footprints of some prehistoric animals are visible on the slab rocks. This valley was traversed by Sir George Simpson in his overland journey around the world, made in the early forties.

Turning to the southward after travelling along the south shore of the lake for a mile, we pass several of those picturesque, natural pillars western men have named hoodoos, and in due season reach the summit of the pass which leads down Carrot Creek to the Canadian Pacific

Railway, at a point about two hours' ride from the village. But if, on the other hand, we wish to extend our trip, instead of following Carrot Creek, we might turn east through a fine, parklike country to the South Fork of the Ghost River, and continue on down it until we reach a little tributary from the southward. Ascending this, we should, at length, reach a intle lake in which there are trout, and heavy trout at that. This was a favorite camping ground and stronghold of the Stoney indians half a century ago, and here they have defeated the Blackfeet, when the latter were ten times as numerous as themselves. Following the old indian trail, and crossing a rolling and well-timbered country, we should at length reach the Bow River at the site of the old Bow Fort. Stone fireplaces and chimneys are still standing that were built in 1802 by the Hudson Bay Company. This fort was abandoned after a short occupancy, as the Blackfeet and Blood indians murdered and scalped the company's servants, and stole the goods that had been freighted at so heavy an expense to this distant post. Three miles further up the Bow, are the Bow Falls, an ideal camping ground, where the best fishing on the Bow River may be enjoyed. Boarding the train here the traveller will find himself at Banff within an hour.

Mr. A. Knechtel, of the New York Forest, Fish and Game Commission, is in Muskoka gathering white pine seed to be sown in the nursery under charge of the Commission. This nursery is to provide seedlings for replanting the burnt-over areas in the Adirondack Park. The reason that it is necessary to come to Canada for this seed is that it is a poor seed year for the white pine in New York State, rendering the supply insufficient, while on the contrary on this side of the line the seed is reported to be plentiful. The spruce seed which is required is being obtained nearer the scene of operations, as there seems to be no scarcity in respect to it. About 200 bushels of pine cones will be required,

vielding about 100 lbs. of seed. The work of replanting which is being done by the New York Commission is a very interesting experiment, and the results will be of great interest to Canada, as the conditions are so nearly similar in a great part of this country. It will give data for the comparison of planing with natural reproduction, the method upon which we are depending entirely at present and will have to depend on for some time to come, but which it will probably be necessary to supplement when the conditions have changed so as to make some other course of procedure desirable to hasten or assure the reproduction of the best trees in special locations.

A Working Plan for Forest Lands.*

The description of a working plan for forest lands near Pine Bluff, Arkansas, by Frederick E. Olmsted, is given in Bulletin No. 32 of the Bureau of Forestry of the United States. The examination of this tract was undertaken at the request of the owners, the Sawyer & Austin Lumber Company, who wished to ascertain how far it was capable of providing a sustained yield for their mills, the annual capacity of which is about 40,000,000 feet. The tract comprises an area of 105,000 acres, about five per cent. of which is bare of merchantable timber. It is generally flat, and the soils are deep sand loams and loamy sands with a slight admixture of clay. The northern part is hilly and the rock

is kept out. A partial protection is worse than none, for if the forest be guarded for five or six years and then burned over, the fire feeds on the accumulated litter, and the damage done is much greater than if light fires occurred each year. Therefore, if protection is attempted, it should be thorough."

About fifteen per cent. of the limit is river bottom land, upon which pure hardwood forests occur. On the remaining eighty-five per cent. of " pine lands " about fifty per cent. of the stand is pine, the average number per acre of all trees over 12 inches in diameter being 27.79, and of pine 15.17.

The sustained annual yield that can be obtained from the forest is given in the following table, the annual cut per 'acre being the same as the present stand :

Cutting limit, diameter, breadth, height, '	·····				
inches	12	14	16	18 '	20
Area to be lumbered annually, acres	2,3So	2.439	2,439	2,380	2,380
Annual cut per acre, board feet	6,067	5,845	5.597		4,561
Total annual cut, board feet	14,439,460	14,255,955	13,651,083	12,209,400	10,855,180
Time required to cut over tract, years;	42	41	41	42	42

granitic, with a shallow soil. The forest, still virgin, is of mixed pine and hardwoods. In the spring of 1900 the Company began lumbering steadily on this limit, and intend to continue such operations. The trees are being cut to a diameter of 18 inches on the stump. They are cut at about 18 inches from the ground, and the last log cut is made well up in the crown, generally at a diameter of about 14 inches.

The influence of fire on the stand of trees was very noticeable, as it was found that only five per cent. of the total area had escaped more or less serious fires during the last ten years. The mature trees were generally but little damaged, but the young growth suffered severely. The examination showed that, as a result of the fires, the number of trees in the small diameter classes is insufficient to maintain the present stand of mature trees, thus adding seriously to the difficulty of proper management. We quote an important paragraph:

"If the forest is to be managed with a view to future crops, it is necessary to obtain young growth which will develop into a first-class stand of timber. This is impossible unless fire

This shows that the area of 100,000 acres, cutting to a diameter limit of 12 inches, breast high or about 14 inches on the stump, can supply continuously about 14,500,000 feet per year, while to give the sustained yield of 40,000,000 feet, which is desired, 276,906 acres would be required, or about 170,000 additional. If the forest were normal, that is, if all age classes were present in sufficient numbers to maintain the present stand of mature timber in years to come, a condition which has been prevented by the fires, equal cuts could be obtained in much shorter periods than are now necessary, and probably twentyfive years would produce a second crop equal to the first, in which case an area of only 170,000 acres would be required for a sustained annual yield equal to the present annual consumption.

It is estimated that, cutting to the diameter mentioned, with stumpage reckoned at \$2 per 1,000 ft. B.M., and the value of cut-over land at \$1 per acre, the average annual interest represented by the future crops on cut-over lands is, for a period of forty years, about 8.8 p.c.

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

Protection from fire is a serious difficulty, as the forest tract is not a solid block, but is cut into by farms and private wood lots, and thus the dangers are greatly multiplied. The following extract shows the transfer of the emphasis from the protection of the mature pine to that on cut-over lands:

"The forest would prosper most if the whole track could be protected from fire. On account of the difficulties just mentioned, however, such a course would in all probability be impracticable at the present time. The most urgent need at present is a thorough system of protection for the cut-over lands. This is entirely practicable, and should by all means be adopted. After the opening of the forest the young growth will quickly develop on these lumbered areas, and it is of the greatest importance that it be given every possible chance for rapid growth, and that the reproduction of the pine be effectually protected in every way."

In regard to the question of assisting the reproduction of pine as against the hardwoods, the following is the statement of the case :

"The object in such a forest should be to obtain a constantly increasing stand of pine and a decreasing stand of hardwoods, as the pine is the most valuable species which this locality can produce. An increase in the stand of pine can be brought about in two ways-by the removal of a large part of the hardwoods and by the exclusion of forest fires. The quality of the young growth, and consequently of the mature forest, will depend largely upon the presence or absence of fires. Even more effect-ive would be the removal of the hardwoods. Unfortunately, however, the quality of the stand and the condition of the market will not permit of this being done at present except at a financial loss, nor is there much teason to suppose that conditions will change to any great extent in the immediate future. Every chance, however, should be taken to cut and remove all hardwoods which show a possibility of affording even a very slight profit. It should be borne in mind that every oak or other hardwood cut tends to increase the number of pinc trees in the future stand,"

Cectures . Resson

The Ash-Leaved Maple.*

The ash-leaved maple or box elder or Negundo or, as it is often called in Canada, the Manitoba maple, was one of the puzzles in classification, as the different names, scientific and common, which have been given to it would indi-The fruit is that of the maple, cate. while the foliage has much of the appearance of the ash; and apparently it was from some resemblance found between it and the elder that it was designated box elder. Negundo was the Indian name, and it has been incorporated in the scientific designations of Acer Negundo and Negundo aceroides, which are used interchangeably according to whether or not the user has decided that the tree belongs to the genus *Acer* and is to be classed as a true maple.

The leaves usually consist of five leaflets strongly and pinnately veined and toothed, particularly towards the end, ovate in shape and pointed. The lower leaflets sometimes assume the shape of maple leaves, and the three terminal leaflets occasionally partly coalesce into a similar shape. The flowers appear rather before the leaves, and the sterile and fertile are borne separately, the former being in clusters on slight capillary pedicels or stems, and the latter in drooping racemes from lateral buds. The seeds are the true samara or winged double seeds of the maple, and are smooth with large, rather incurved, wings. The small branches are green, and on the younger trees the bark is smooth and grey brown, becoming later a more decided grey and rough.

In Canada this tree is most largely distributed in Manitoba and the eastern part of the North West Territories, being found only sparingly in Ontario, though it is now frequently introduced as a shade tree. Unless care is taken, however, it is apt to grow crooked and finally become anything but ornamental. Its chief recommendations are its easy propagation and its rapid growth, as it will reach the proportions of a goodsized tree and be seed-bearing in ten years. It probably does not reach a great age, and its wood is of little value, except, perhaps, for Srewood, where better is not available. As the pioneer tree for a shelter belt or wood lot nothing

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

could be better, and it has been the most extensively used for this purpose in the West. It has been distributed largely from the Experimental Farms and is being used to a great extent by the Forestry Branch of the Department of the Interior.

The ash-leaved maple is found as far west as Maple Creek, to which it gives its name, and it is grown with great success at the Experimental Farm at Indian Head, but there is a decided difference of opinion as to whether it will succeed farther west. Some assert that it will grow, and cite instances to illustrate their position, while others who have had considerable experience have found it impossible to grow it successfully. The Chinook winds and the elevation, no doubt, are the detrimental influences.

The gathering of seed from this tree is a comparatively easy matter, as it remains attached to it late in the season, and is sometimes found scattered over the snow in winter. It may be kept over the winter by packing in dry sand; about two inches of sand to each layer of seed, alternately. Last year the seed of this tree at Indian Head and in other parts of Assiniboia was attacked by a fungus, which caused a loss of probably ninety per cent. of the whole crop. The edges of the wings became bleached and spotted, and the seeds failed to fill. The disease is probably a temporary outbreak, and there is no previous record of such an occurrence. Dr. Jas. Fletcher, in his report on this matter, suggests as the only two methods of combating the attack, the burning of the affected seeds, or, where possible, spraying the trees with some good fungicide like Bordeaux mixture.

Sugar is made from the sap of this tree, and in the West it is often called the sugar maple. The product, though not equal to that of the hard maple, is palatable. The Indians manufactured it for their own use quite regularly; and in St. Martin's lake, in the northern part of Manitoba, there is an island named Sugar Island from the fact that it contained a grove of the "sugar maple," and was frequented by the Indians for the purpose of obtaining their supply of this dainty.

The Census returns of the United States show that the lumber product for the year 1900 was 34,787,084,000 ft. B.M., having a value of \$385,298,304; the conifers making up 26,153,063,000 ft. with a value of \$268,481,112, and the hardwoods 8,634,021,000, with a value of \$116,817,192. The quantity of white pine was 7,483,283,000 ft., of hemlock 3,420,673,000 ft., and of spruce 1,448,091,000 ft. The largest product, though less in value than that of the white pine, was that of the yellow pine, including all species, which amounted to The change in the 10,603,108,000 ft. proportion of lumber drawn from different parts of the country is shown by a comparison of the figures of 1850 Their with those of the present census. percentages are :--North Eastern States, 1850-54.5, 1900-16.0; Lake States, 1850-6.4; 1900 - 27.4, Southern States,

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1850-13.8, 1900-25.2; Pacific States, 1850-3.9, 1900-9.6. The Lake States. the white pine district, reached their highest percentage in 1800 when it was 36.3. They are still the largest producers. Wisconsin has the highest production of any State, namely ten per cent of the total product of the country ; Michigan, 9.6 per cent; Minnesota, 7.7 per cent ; followed by Pennsylvania with 6.3 per cent and Washington with 5.3 per cent. The stumpage of white pine 1s \$3.66; of Norway or red pine, \$2.88; of spruce \$2.26. The hardwoods, obtained principally from the central part of the United States, including the eastern portion of the Upper Mississippi valley, are led by the oak with a production of 4,438 million feet, followed in descending proportion by poplar, maple, elm and ash. Black walnut has the highest stumpage, namely \$5.00.

The Collie Club Show.

BY D. TAYLOR.

The annual fall show of the Montreal Collie Club was held on the grounds of the corporation quarry at Outremont on Thanksgiving Day. As usual, it was confined to the membership, still, even with this restriction, the number and quality shown was a credit to the club, and goes to prove that some, at least, of the members are working in the right direction, namely, breeding to the bist sires obtainable and endeavoring by every other means in their power to reach the highest standard in the collie of the present day. The club has the good fortune to have a live membership; not a few are hustlers, who consider that every man who owns a collie should be in this charmed circle of doggy men, and readily accounts for the large number of names on the secretary's roll. It was only a ribbon show, yet the enthusiasm was as pronounced as if the prizes had been in the shape of anthracite, while the anxiety as to the judge's awards was just as keen as that displayed by the average householder when he views his empty coal bin.

Fortunately the weather was favorable for an outdoor function, a bright, warm sun making overcoats and wraps a superfluity, and accordingly a large number of spectators, among whom were many ladies, came to see and admire the dogs. It is remarkable how many of the fair sex take to the collie, and how the faithful creatures respond to the care and attention bestowed on them with such manifestations of love and gratitude as to compel the admiration of every thinking man or woman. The commit-tee, conspicuous among whom were Messrs. A. F. Gault, president; J. R. Lewis, secretary; and R. C. Binning and Jas. Ainslie, gave a friendly welcome to all visitors. Hot coffee, cake and fruit were given out with open-handed hospitality, and one and all expressed their thanks for the courtesies extended.

The judging was in the hands of Mr. Tom Smith, of Laurencekirk, Scotland, who is himself a keen admirer of the collie, with the added knowledge gained by experience as a breeder. What he don't know about the good and bad points of the breed amounts to very little, and his awards were given with fairness and impartiality, and were received by the exhibitors in the spirit in which they were made. There was little or no kicking, which is something out of the common at dog shows.

Getting down to the dogs, it may be remarked that while the number shown was hardly equal to that anticipated, the quality, with a few exceptions, was fairly good, and there were several outstanding examples of what the modern collie should be. Two of the finest specimens shown (Balmoral Piccolo and Balmoral Duchess) came from the Balmoral Kennels, Ottawa, and were greatly admired. We have had occasion previously to express our opinion of both dogs, and the favorable impression entertained at first sight has only been strengthened by a further inspection. Both animals are typical of their sex, and no better blood can be found anywhere than that which flows in the veins of either. The bitch was not nearly in such good condition as when she won in Toronto last September, and there was also an evident lack of grooming. On these points only we think she might have given way to her kennel mate in the place for best collie in the show, but Mr. Smith was evidently taken with her shapely head and sweet expression. The second prize dog, Mr. Hill's Balgreggie King, has a remarkably fine appearance. He is of good size, and built on racy lines, with a good length of head, inclined to be cheeky, and the ears a little too far apart; otherwise he is almost faultless. He is a very welcome addition to the stud collies of Of the young stock one of the Canada. best was W. Wells' Lacolle Blossom, a puppy of exceptional merit and exceedingly well developed for his age. He has a good head, well carried ears, deep

chest, and is straight and true in front. In the class under three months Mr. Stalker showed some very nice ones, the winner especially, Scrathardle Prince, giving excellent promise. Among the bitches Mr. Woodall had two little beauties in Lady Marion and Lady Helen, which, if he has any decent luck with should be heard of later on. The Balmoral Kennels showed in the class under six months a very handsome puppy in Balmoral Laza and another almost equally good in dogs in Balmoral Sandy. The first in this class, Glencoe Dand, II., however, was properly placed. Mr. Ainslie owns three good puppies, Rannoch Prince, Rannoch Rover and Rannoch Belle, which a month or two older should show a marked improvement. The first named appears backward for his age, but has all the characteristics of a good collie. Mr. Smith's Lord Stanley is a good bodied dog, but faulty in the head and rather large ears.

The club is to be congratulated on the position it has attained in membership and influence. Their shows are always well conducted and an object-lesson for the beginner in the dog farcy, besides, they have the tendency to teach people what a good dog looks like and how, when properly cared for, what a pleasant companion and friend under good or bad fortune he really is.

Derivation of Breed Names.

It should prove interesting reading to all lovers of dogs to know from whence the names of the different breeds are Some of them, of course, are drawn. self-evident, deriving the family name from some locality where the breed was popularly supposed to originate or where it is extensively bred. Thus we have the "Skye" terrier taking the name from the island of Skye, inasmuch as at one time it was almost exclusively raised there. In the same category we have the Airedale terrier—"the gentleman from the Valley of the Aire," the denizens of which are strenuous in their advocacy of the merits of this fine dog of the terrier family. By the way, few people would imagine that the name terrier is derived from the Latin word terra, corrupted through the evolution of time into the present form, and that it was applied because of its habit of following game into the burrows of the earth. The name pointer is easily traceable to the habit of that dog pointing at game with its nose, in fact, with its whole body, because from the tip of the tail to the other extremity is almost a straight line. The difference between the setter and pointer in making a "point" accounts for the name, because, when the bird's are sighted the former comes to a crouching attitude, and hence

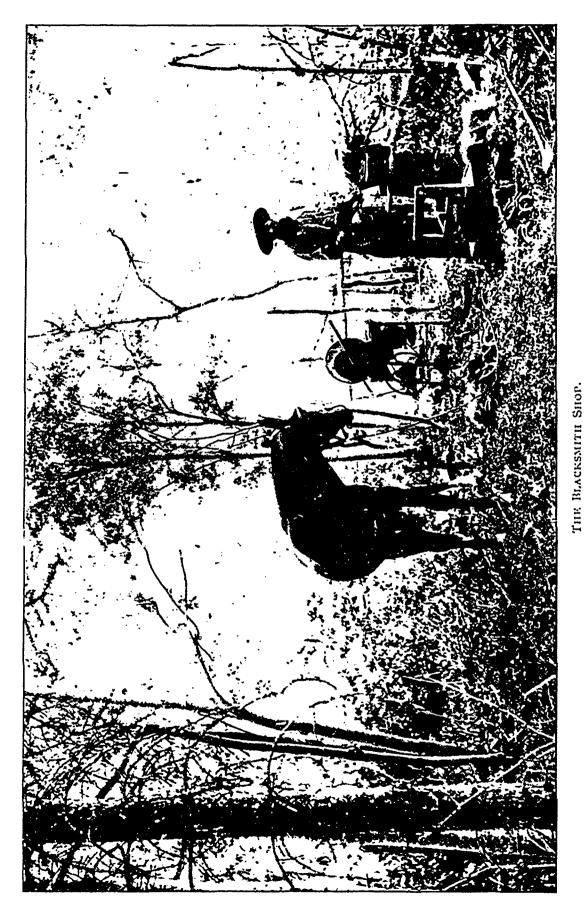
the term setter. Readers of Sir Walter Scott's "Guy Mannering" will have no difficulty in ascribing the origin of the Dandie Dinmont breed of terriers to the typical border farmer who figures so largely in the novel of that name. They are quite his equal in courage and tenacity of purpose, and will tackle and draw a badger from his lair even if the "yarmint" weighs half as much again as his small but plucky antagonist.

There has been a great deal of controversý about the term greyhound, and the authorities are at sixes and sevens over the derivation of the name. Some have even explored the Greek vocabulary to find a raison d'être for the prefix " grey "; others claim that it signifies great, while the majority (who have certainly more plausibility on their side) say that it simply implies that the predominant color in the animal is grey, and in no other breed of hound does the blue and grey appear so frequently. In olden times stag-hunting prevailed as a favorite amusement among the nobility and gentry of Britain, and the hound known by this name at the present day owes its title to the fact that this breed -said to be part greyhound and part bloodhound-was employed exclusively in hunting the stag. In like manner the foxhound gains its distinctive appela-

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THE HOME OF THE HOODOO. A .ene taken in the Canadian National Park.



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This photograph was taken during the construction of the Atlin-Quesnelle telegraph line.

tion from the fact of its being used only for hunting the fox. And we may say that, with the probable exception of the bloodhound, there is no other breed of dog which pursues its quarry with such tireless energy and persistence. The derivation of the term bloodhound is obvious. In former years these dogs, from their singular power of scenting the blood of both man and animals, were extensively employed in tracking criminals, runaway slaves, etc., and hence the name. Even in the present day they have been used successfully in tracing criminals and the name is altogether appropriate. The fox terrier is said to derive its name from the fact that this useful little animal was at one time reckoned an essential adjunct to a pack of foxhounds, and occasionally they are used yet along with the pack. The little fellows are never far behind when, after a long run, the fox goes to earth, and in such case their usef thess comes in, assisting in no small degree in the capture of the fox. Harriers are chiefly used in hunting hares, and the connection of one name with the other is apparent.

The age to which a dog lives in the ordinary course is always a somewhat interesting subject, especially at the present time when so much is done in the way of breeding for early maturity. For instance, we have both collies and fox terriers becoming bench champions before they are well out of their puppyhood, but it is sad to say that in a majority of such cases the overshown dog afterwards rapidly degenerates or dies an early death. A correspondent writes of the death of his fox terrier at the advanced age of 18 years, having been born in 1884. This is, no doubt, a case of unusual longevity, but instances of dogs living to 14 and 15 years are common, whilst others which have survived to 26 years and over have been chronicled from time to time. The death of a dog of Lord Ogilvie's is recorded at 23 years old, it arising from an accident. The well-known fox terrier Belgrave Joe was born July 31st, 1868, and died Jan. 13th, 1888, whilst another aged terrier was one of the working stamp, born in January, 1880, and died Feb. 13th, 1900. In several of the above well-authenticated cases of longevity death either arose from an accident or was brought about by the owner owing to the growing feebleness of the poor creature. No

mean can be struck as to the average age of the ordinary dog, but this might be taken at 10 years as he is now.

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Speaking of dogs, said a nattily dressed man who had quietly seated himself in the group, here is a story that was an actual occurrence and has never been published. It happened one day that a street car was overcrowded. An Irishman stood on the rear platform, and, looking in, saw an overly-dressed man accompanied by a toy dog, the dog occupying the seat.

Turning to the conductor, he remarked in very rich brogue, "Phwat koind of roights has thot dawg to a man's sate en Oi hev paid foive cents en stand?"

Stepping into the car, the conductor abruptly requested the removal of the dog, and the Irishman took the seat, remarking to the owner, "That's a foine dawg ye have." No response.

He makes the second attempt to mollify the ruffled feelings of the dog-man by remarking, "P¹wat koind of a brade dawg is thot?"

"It's a cross between an Irishman and and an ape."

"Oh, is thot so?" came the quick rejoinder. "Sure, then, it's related to both av us."

The Irish Setter.

BY H. M. WALTERS.

Of the three varieties of setters, namely, English, Gordon and Irish, the writer has always had a strong preference for the last named. In Canada, more particularly, quite a number of really good Irish setters can be seen daily as ladies' companions; in the Old Country one rarely sees one in this capacity, being solely seen on the bench and in the field. It has been stated frequently that the Irish setter is far behind his Scotch and English brother in the field, being a rash, headstrong dog, and more likely (unless given lots of exercise to steady him down before shooting over) to prove more a source of annoyance than a pleasure 'instead to his owner over birds. The writer cannot agree with this idea, as his experience has invariably been distinctly favorable to the Irishman. As an instance of this he would mention that on one occasion he purchased a noted bench winning bitch from Sir Humphrey de Trafford, England, that was stated to be broken by Hallam and a good worker, unselfish and steady on her birds. The bitch had not been worked the season previous to her sale, and the writer showed her for two seasons very successfully, and never shot over her, being under the impression that she was gun shy, but we will return to this later. Α friend seeing her took a great fancy to her and induced the owner to lend her for the grouse season, which opens on August 12th. She was sent up north on the 10th, and the 12th being Sunday never was out. On the evening of the 13th the writer received this wire: Ronesther perfect in field, made no mistake; very unselfish. Will you sell her?" He afterwards stated that he had never shot over a bitch that quartered her ground more carefully and in such good style, and had such perfect selfcontrol when fur was put up. This instance the writer can give and many others, that would go to show that the Irish setter has a most retentive memory, and when once carefully broken is a most charming companion in the field. With

his rich red jacket and gay stern he is a most attractive looking dog; being as a rule a beautiful mover, he is a more racy type of dog than the English and Gordon and has a much more lively air about him.

Above all things the Irish setter should be the possessor of a good dark eye, a canary or straw colored eye should, in the writer's estimation, be tantamount to disgualification, although in reality only ten points are allowed for the eye. Α light eye takes away from the dog that lovely, trusting expression which a well bred Irishman should have, and gives a staring, frightened look altogether foreign to the Irish man as well as the Irish dog. He should also have a rich red coat, the mealy color so often seen being very undesirable. He should have lots of bone and feather and stand on good straight legs; should not have hare's feet, but a compromise between the hare and the cat foot; in body he should be well up at the shoulder, but with the shoulder placed well back as in a thoroughbred horse, and fall from there in a graceful manner to the tail which should be short, the shorter the better. Long tails are the most general fault in this country, and although the writer admires this short gay stern so much, he has not seen one or possessed one that came up to his standard of perfection, with the exception of one St. Elmo bitch bred by a Mr. Kermode, of Montreal, that unfortunately died of apoplexy. The head should be long and clean, with the stop nicely defined and the muzzle square, not snipey. There was a very good specimen at the late Montreal Show, by name St. Lambert Kathleen. She was, though only an eleven months puppy, nearly perfection in muzzle, and had a very fair straight tail. The ribs should be well sprung and the quarters not cut off sharp behind, but falling off gradually to the stern. As an example of body the writer would mention Champion Sig's Girl, who is well nigh perfect in body and spring of ribs. One

of the main features of the head of the Irish setter is the decided development of the occipital bone, which, although not so highly developed as in the bloodhound, is yet quite marked in the Irish setter of show renown. One of the best illustrations of this may be seen in the head of Champion St. Lambert Mollie, and also the points referred to before, namely, good legs and feet, these being some of her strong points. On this side of the water the writer understands that Champion St. Elmo was at one time facile princeps in head, having that perfect formation above the eye and the high occipital bone before referred to. He is often spoken of as "the lovely headed St. Elmo." The writer saw him for the first time four years ago at the Montreal Show at the Arena, and, with the exception of Rev. O'Callaghan's Champion Shandon, he had never seen so perfect a head, although for type and quality all through he preferred both Champions Shandon and Finglas. The most perfect bitch the writer ever saw was Rev. O'Callaghan's Champion Aveline, a dream of quality. Champion Geraldine, the same owner, was thought by some superior, but of the reverend

gentleman it can be truly said he never showed or sold a poor one, he always making a practice of destroying at nine months those he considered lacking in too many points, preferring this course in order that the breed might not deteriorate. To Mr. Samuel Coulson is largely due the high state of perfection to which Irish setters have attained in Canada, he having been a genuine friend to the breed. It is to be hoped that many young fanciers will follow in his footsteps. But we must not forget before closing that true lover of dogs and their ways, and that able judge, Dr. Wesley Mills, who probably knows more about Irish setters than any man in Canada, and who bred some good dogs in their time. Had this little essay on the Irish setter been in his hands, it must undoubtedly have proved more pleasant and instructive reading. To hear a lecture on dogs by Dr. Mills is a sine qua non that you will not rest satisfied until vou have heard another. In conclusion, let us hope that the Irishman may be taken up by more patrons like the last two gentlemen named until he attains as near perfection as possible.



Opportunity.

BY THE LATE JOHN J. INGALLS.

Master of human destinies am I!

Fame, love and fortune on my footsteps wait, Cities and fields I walk, I penetrate Deserts and seas remote, and passing by Hovel and mart and palace, soon or late I knock unbidden once at every gate ! If sleeping, wake ; if feasting, rise before I turn away. It is the hour of fate, And they who follow me reach every state Mortals desire and conquer every foe Save death, but those who doubt or hesitate Condemned to failure, penury and woe, Seek me in vain and uselessly implore I answer not, and I return no more !

In the Rockies.*

BY JAMES OUTRAM.

The annual problem of where to spenda summer holiday is now-a-days most difficult to solve : not from a dearth of wonderlands or healthful resorts and lovely scenes, so much as from an "embarras de choix."

With modern facilities of locomotion, cheap tours and other mediums, the beauties and marvels of Dame Nature are almost all within the reach of thousands, and fresh discoveries are adding to their number year by year.

These latter possess for many an additional fascination from the fact of novelty, being unhackneyed like so many of the world's famed "sights," while equal in their charm of scenery to countless widely advertised and long visited tourist centres.

Such a place is to be found within touch of civilization, in the heart of the Canadian portion of the Rocky Mountains, that magnificent Cordilleran belt which spans the North American Continent from Arctic sea to central isthmus.

Two summers since, in passing across the continent, the writer spent a week at Field, a little railway centre in British Columbia, and was so enchanted with its situation and surroundings that he determined to return in 1901, and spent three months ere he could tear himself away.

The journey thither is of continuous interest from either shore: from the Pacific, by the glorious Fraser canyon, and across the snowy Selkirk range; or from the busy East, over the deep-blue waters or skirting the rocky, indentated shores of the Great Lakes; across a thousand miles of silent prairie, with its fields of waving grain ; through the giant gateway of the mountains, where the precipices seem to rise straight from the undulating plain and suddenly engulf the approaching traveller; past sunny Banff, magnificent Mount Temple and its glacier-bearing neighbours of the water-shed; at length "The Great Divide " is crossed, and ten miles further down, on the Pacific slope, lies Field, 4,000 feet above the sea, cradled in the

arms of mighty mountains, whose snowclad peaks and shattered crags appeal directly to the heart of every Naturelover.

Close nestled beneath the castellated ramparts of Mount Stephen, the glory of the valley, beside the murmuring waters of the Wapta River, stands the hotel; and the greeting from Miss Mollison, ablest of managers and pleasantest of hostesses, makes the guest feel immediately at home.

But the delightful situation of this charming centre and its many comforts, only give a preliminary foretaste of the joys of its environment, with its boundless possibilities.

The mountaineer is amply catered for : magnificent view-points, with a fair spice of difficulty in the ascent, lie close round the hotel; and loftier peaks, which almost vie with those of Switzerland, can be reached in a day or two by camping Facilities for this are provided on out. the spot, and guides from Switzerland are stationed by the railroad company for the benefit of climbers. For more extended expeditions, also, three valleys offer pre-eminent attractions. Cataract Valley, leading from Hector to the exquisite O'Hara Lake, circled by noble crests; Ice River Valley, deeply cleft in the centre of the Ottertail group of nountains, whose charms were practically all unknown till last July, when Messrs. Fay and Scattergood and I made the first mountaineering expedition to explore the valley and attempt its three great peaks; and Yoho Valley, of which more anon.

For the less energetic, geologic interest and natural beauties are encountered close at hand. On the slopes of Mount Stephen there lie extensive beds of fossils, where trilobites in myriads, of an infinite variety of size, may be picked up by any one; and, higher still in the huge amphitheatre above, fine specimens of crystals can be found.

Two and a half miles or so from Field is a fine natural bridge, formed by the

^{*} From the English Illustrated Magazine.

wearing of a narrow archway through a massive wall of rock, which stretches right across the river bed, and the whole volume of the Wapta foams through the contracted orifice in this mighty barrier with tremendous force and a fine display of lashing spray and turbulent disorder.

Barely two furlongs further the harassed river enters a narrow canyon, down which, with tortuous course and several thundering cascades, it tears its way between constraining cliffs, presenting a succession of effective " bits" to wanderers above on either rocky bank.

But the grandest feature of the neighbourhood of Field is, most undoubtedly, the Yoho Valley which, both by its own resources of lake and waterfall and glacier, and the delight of its approaches, whether by Emerald Lake or Burgess Pass, is destined probably to be the most famous of the many grand attractions of the mountains.

True, there is not the rugged, precipiced *entourage* of Moraine Lake; nor the exquisite setting of Louise, whose superb, snow-crowned sentinels, Victoria, Lefroy and Aberdeen, keep their eternal vigil over its fair waters: but there is infinitely more variety. One is led on from one sublimity of Nature's handiwork to another. Lakes, large and small; gorges black and awesome; lesser ravines, with twisting channels and sparkling-rush of water, eddying between the well-worn rocks; grand woods and noble cliffs, with flower-decked alps and lovely vistas through the trees; glaciers, wondrous in form and colour, descending into the valley bed; and above, the lofty mountain-sides, all hung with gleaming glaciers and culminating in pure snowclad peaks or jagged, gabled masses, which pierce the very vault of heaven.

But it is the waterfalls that add the crowning charm in the concatenation of delights. The countless tumbling cascades that seam the steep walls on either side; the grandeur of the great, glacierfed Takakkaw Fall,* and the less lofty, but perhaps yet more effective Twin Falls, scarcely to be surpassed in any land for picturesqueness and for charm.

In this idyllic corner of the mountain world, the writer spent two or three weeks as Mr. Edward Whymper's guest, and had the opportunity of climbing all There are two main approaches to the Yoho Valley now. The principal by waggon road through a grand forest (where one long vista leads the vision down the enshadowed avenue of tall, tapering trees to the white sunlit crest of glacier-crowned Mount Vaux), to the shores of Emerald Lake.

Here a hotel in the Swiss châlet style is being built, and comfortable accommodation will be provided for a lengthened stay. Situate on the edge of a small wooded promontory, lapped by the peaceful waters, with pleasant paths meandering through the forest growth along the shore, and cosy corners everywhere for rest and scenery to be enjoyed, it stands beset by alpine slopes and rocky pinnacles, Mount Wapta's castled ramparts and the splendid precipices of Mount Burgess; and in front, the sleer face of the Emerald mountain with its snowy curtain and encircling glaciers, far above; the whole rich setting re-appearing in sharp-detailed duplicate upon the mirror surface of the tree-girt lake.

But we must leave the châlet and, on foot or horseback, resume our expedition. Quitting the lake, a stretch of gravel flat is crossed, and a steep trail winds past some pretty falls and ere long buries itself in the thick woods, through which we steadily ascend until the summit of the Yoho Pass is gained, at an elevation of just 6,000 feet, between Mount Wapta and the Parson's Peak, the culmination of the eastern spur of the Emerald group of mountains.

Here a trail converges from the right, a beautiful alternative by which to come direct from Field or to return.

It is a way replete with lovely pictures ; the pine trees and the lowlier growth upon the slopes and ridges of Burgess Pass form a succession of admirable frames and foregrounds for many a striking view, so that the 3,000 feet of ascent, by a good pony trail, seems scarcely half the altitude, so constantly enjoyable has been the scenery — down the valley where Mount Vaux's elegantly moulded glacial apex shines against the blue ; up the narrow wooded canyon to the Great Divide ;

the hitherto untrodden peaks in its vicinity and of exploring thoroughly its recesses, vast snowfields and outlying passes.

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^{*} Takakkaw, a Cree Indian word, meaning "It is wonderful."

or straight across to Stephen's splendid mass (seen here perhaps to better advantage than from any other point) and the Cathedral's ruined spires and towers.

As the narrow ridge of Burgess Pass is crossed, the Emerald group bursts on the sight, with the bright lakelet in the leafy setting 3,000 feet below, more exquisitely emerald in colour from this vantage point than from a lower altitude, and the tremendous wall of Burgess towering above our heads.

The trail now skirts the bases of Mount Field and Wapta, trending downwards at an easy angle. The latter peak is well worth climbing and not difficult, provided that one expert and a rope are of the party. It affords a glorious panorama in all directions, and is, in many ways, the finest point from which to get a comprehensive survey of the Yoho Valley.

The path swings round to join the lower part on Yoho Pass, and brings us, in a few paces, to a restful little lake, enshrined in forest, with a fairy peep of whitened summits far beyond, and the sharp Parson's Peak its dominating feature in a backward look.

Again we have a choice of routes at our disposal. The upper one soon passing timber-line and clinging to the rugged flank of the east ridge of Emeralds, just below its fringe of glacier, presents a series of fine prospects. Before the path emerges from the trees, a booming as of distant thunder reverberates with ever growing volume and intensity, and in half an hour we issue in full sight of the grand Takakkaw Fall, on the far side of the valley, more than a mile across in an air line.

The great névé between Mount Balfour and Mount Niles gleams white above ; a crevassed glacier tongue streams down a narrowing gully, worn in long ages in the face of a tremendous wall of rock, nearly 2,500 feet in height; the torrent, issuing from an icy cavern, rushes tempestuously down a deep, winding chasm till it gains the verge of the unbroken cliff, leaps forth in sudden wildness for 150 feet, and then in a stupendous column of pure white sparkling water, broken by giant jets descending rocket-like and wreathed in volumed spray, dashes upon the rocks 800 feet below, and breaking into a milky series of cascading rushes for 300 feet more, swirls into the swift current of the Yoho river.

Down the far-stretching steeps, clothed with their wealth of pines or rugged in their barrenness, dash other silvery cascades; the river gleams below : majestic lines of cliff and jagged pinnacles cleave the clear sky, and glaciers and snowfields lie along their base.

When we at length move onward, the sharp-cut point of Angle Peak rises above us to the left, and we swing round the shoulder of the Emerald massif into the Upper Yoho Valley, a tributary descending at right angles to the main. It is an ideal upland vale. The lower portion is draped heavily with trees of varied foliage screening an exquisite little lake, and the torrent's course, rugged always and broken by repeated cataracts and miniature canyons, grows deeper and narrower and more abrupt, as it plunges downward to a final headlong leap over a splendid belt of cliffs to join the foaming river.

A somewhat long but interesting digression may be made to the head of the valley, which soon grows wilder, hemmed in by the ragged spurs, the massive peaks and lofty glaciers of the Emerald group on one side, and the broken ridges from Survey Station 18 and Insulated Peak upon the other.

Near the top of the pass, the gable of Kiwetinok Peak forming an effective background, lies a lonely alpine tarn, almost entirely frozen over, when visited in August last, with deep snow-banks and barren boulders bordering its chilly surface. Across the pass, a way, laborious and long, can be made into the Beaver-tail Valley and on to Field.

If the lower path from Yoho Lake is taken, we round its further end and traverse thick pinewoods, with the roar of the great Fall ever sounding louder in our ears. Then comes a rapid descent, with a view of the Takakkaw on the way, and sharp zigzags to the floor of the valley, where rich grassy meadows lie extended at our feet.

Soon we are standing by the river brink, face to face with the huge cataract, whose glistening mass of foaming water seems to pour straight from the blue firmament that crown the frowning walls, and crashes with a ceaseless thunder on the boulders at their base.

Traversing shingle flats, green sunny meadows, and shady forest groves, we pass the shallow Lake Duchesnay, its waters wonderfully warm and its shore thickly strewn with the tiny shells, with Yoho Pcak, so often visible as we ascend above the pines, and the white, gleaming glacier forming the central feature of the background.

Hard by, the river passes through a narrow, crooked flume, worn deeply in the solid rock, a turbulent and seething flood; and, a short distance higher up, two considerable tributaries enter from the west. First the Upper Yoho stream, leaping from out the dark-green woods that cling to the steep cliff sides, makes its lofty plunge close to the trail, forming the Langhing Fall. Two hundred paces further, the torrent draining Habel glacier comes impetuously down, and our way now lies along its course. A forest trail with some ascent is followed, and soon athwart the pine trees to our left a glimpse is gained of what, by many, is considered to be the chiefest glory of the region—the Twin Falls—not equalling in grandeur the Takakkaw's single leap, yet still more picturesque.

A path diverges to its foot, ascending steeply through the trees; and near the junction, with a fine view of the Falls, a rust'c shelter is erected where the visitor may make a pleasant stay. Delightful peeps of the tunultuous stream are frequently obtained, and a superb gorge is passed, with vertical precipices fully 200 feet in height, whose crests are almost touching as they overhang the boiling torrent.

Soon we arrive at the foot of the Twin Falls themselves, and from a wide, sloping terrace, covered with undergrowth and shrubs, gaze up at the noble cliff, which rises abruptly some four or five hundred feet and stretches right across the valley. From two deep grooves worn in the centre of its upper rim, the parted river pours its glittering twin streams in ceaseless cataracts, which rush united downwards in a succession of turbulent cascades and sweep below us widly in their headlong haste.

A *détour* to the right enables one to clamber to the summit of the cliff, and

thence a pleasant stroll through an open flower-strewn glen will take us to the end of Habel glacier, with its three tongues ; or, by keeping to the north, an interesting rock scramble leads to Yoho Peak.

The return from the Twin Falls should be by the footpath beside the little river. Frequent cascades and foaming rushes, miniature canyons and meandering curves, form many a lovely picture, set off by the varied greenery of bush and plant, and framed by massive trunks and over-arching boughs.

Crossing the stream, another characteristic Yoho Valley lake comes suddenly to view amidst the trees, and from its lower end, above the heavy fringe of firs, we catch a distant glimpseof the Twin Falls, and see them again reflected in the clearness of the water, whilst the murmur of their far-off thunder fills the ear.

Then we complete our journey to the upper end of the main valley. Half an hour from the Shelter brings us on a sudden face to face with the vast tongue of glacier that pushes its resistless way from the great life-bereft snow regions far above, between huge barren cliffs, into the verdant heart of the warm lower realms of life and vegetation.

It is one of the twoscore or more great outflows from the enormous Wapta and Waputtehk ice-fields, an expanse some thirty miles in length, which curves in the form of the letter J around the head of Yoho Valley, its long tongues descending on either side of the water shed between each pair of peaks that form retaining walls for its vast arctic mass.

The Yoho Valley, thrusting itself as it were into the very centre of this great snow-field, is obviously an unequalled base for studying the glacial world. No glaciers near the railroad rival these for area, variety or interest. Easy of access, all the characteristic features of these marvels of the alpine world are readily displayed within a few hours' journey of its sheltered woods and meadows.

Even a single hour on the ice will yield such scenes of interest that it would repay ten times the labor. Vast crevasses, lateral and longitudinal, are caused by the passing of the frozen river, from fifty feet to a hundred feet in depth, over the rapid fall of bedrock, or by the compression of its mass between the narrowing cliffs. Séracs—the pinnacles and towers of ice formed by the combination of the two distributing causes—rise in bewildering chaos in the more broken parts. Great banks of brown moraine, the *débris* fallen from the mountain slopes and carried downwards by the advancing stream of ice, line its sides and sometimes mark its centre. Here and there, perhaps, a glacier-table may be seen, where a large block has by reflected heat melted the ice and snow in a deep hollow around it, but by its shadow shielded a pedestal on which it is upborn in isolation.

From Yoho Peak (an easy climb) a glacier panorama, seldom to be surpassed, save possibly in some far more inaccessible locality, is outspread. Situated between the Habel and the Yoho tongues, a wide expanse of snow-field, edged with noble peaks, almost surrounds our viewpoint; the one exception is the south, where a fine vista of the green Yoho Valley breaks the uniformity of white, and leads the eye down its deep, wooded cleft to the long indentated range of splendid mountains beyond the railroad — Mounts Temple and Victoria, Lefroy and Hungabee, Cathedral and Stephen.

For hose who have both time and inclinatic n more extended glacier excursions can be profitably made. The ascent of Mount Habel and Mount Collie, respectively 10,600 feet and 10,500 feet above the sea, are comparatively simple if a good guide is employed, and a stupendous panorama, particularly grand towards the giant ranges on the northwest, is obtained from either.

Others, who do not wish to climb but may desire to see the beauties and interests of glacial scenery and experience, are recommended to essay one or more of the three passes opening up new worlds upon their further sides. But an experienced guide is absolutely necessary for the safety of these trips. As yet no shelters are erected on the other side, and a night out is necessary if a return by the same or by another pass is planned. But a night out in the Rockies, wrapped in a blanket on a springy couch of branches underneath the spreading fir-trees (especially beside one of the beautiful lakes that nestle at the terminal of each of these three glacial passes), is a

delightful experience and well worth the experiment.

The Balfour Pass to Hector Lake is an exception, however, and a long day's rapid marching will take the traveller to Laggan the same night, and make an agreeable variation in the return route to civilized society.

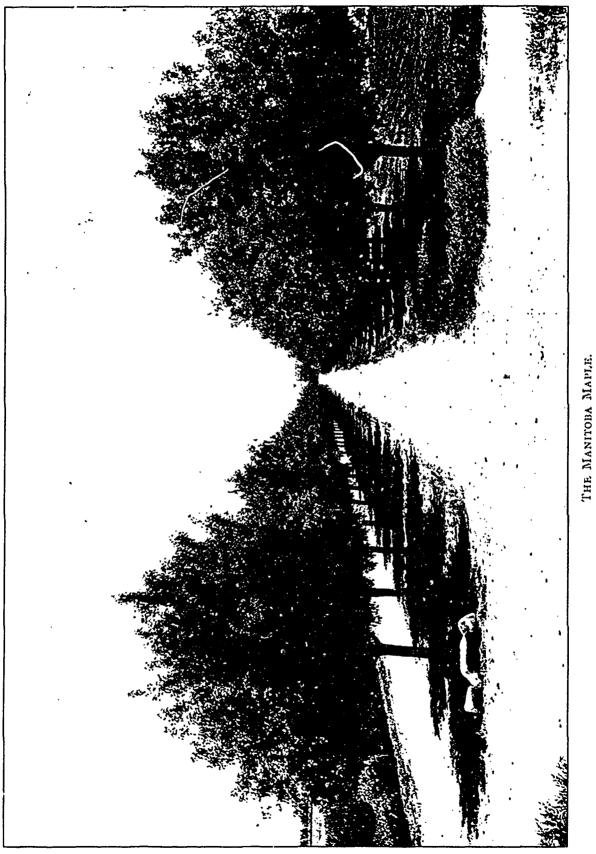
The treasures of this alpine valley and its varied environment, its wealth of forest, flowers, streams, lakes, glaciers, waterfalls and mountain peaks, are far from being exhausted in this brief survey. Weeks might be pleasantly passed exploring its recesses and wandering amongst its still untrodden haunts.

One only lack there is, in common with the Rocky Mountain region generally—the lack of life. Deep tracks of cariboo and other big game witness to their quondam multitude, but they are driven now to more secluded fastnesses. The mountain goat is sometimes seen, and a herd of seventeen were watched with interest by our party one morning on the southern slope of the bare ridge which bounds the upper Yoho Valley. Marmots, it is true, are seemingly abundant, and their whistle echoes often among the higher rocks. The squirrel, too, peeps out at times amongst the pines or races across the pathway. Bird life is scarce : a whisky-jack or two, a few grouse, and occasional small birds are seen at intervals, but silence usually reigns supreme. The porcupine is fairly common and frequently amusing to encounter: several visited the precincts of our camp, and one I met in circumstances of special interest.

When traversing the snowy ice-field which overhangs the end of Habel glacier, at an altitude of some 9,000 feet, a round, dark object was perceived close to the edge of a crevasse. On going nearer to investigate, we recognized that it was a porcupine, a record mountaineer amongst its species, 1,500 feet above the timberline. Getting as near to it as possible, for the great crevasse yawned deep between us, I took a portrait of this alpine enthusiast.

We were not certain whether he was dead, asleep, or wrapped in meditation, so we snowballed him. At this indignity he uncurled hurriedly and waddled off. A second photo was recorded as he disA TYPICAL IRISHMAN. Champion st. Lambert Mollie, owned by Messrs, Walters and Learmont.





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An avenue on the Indian Head Experimental Farm of the Dominion Government.

appeared beneath an overhauging ledge of snow, but soon he slipped and fell some twenty feet into the chasm, where we saw him wandering about unhurt, but probably, alas! unable ever to climb out. And there we were compelled to leave him to his doon, the victim of the only fatal accident recorded for the year in the Canadian mountains.

It may appear unwise to close the story of the Yoho with a tragedy. But unless, like this victim, travellers will climb alone or insufficiently equipped on glaciers and other unsafe places, there are no dangers on these mountains ; and their grand summits and extensive panoramas, the glaciers with their wondrous beauties of form and coloring, the sombre forests and the flowery alps, the splendid cataracts and lovely lakes, unite in calling to the lovers of the sublime and beautiful to come and pay them a visit, which cannot fail to lead to admiration and affection, and send them home refreshed, invigorated and inspired.

Our Medicine Bag.

Many successful hunters have passed through Montreal on their return from the game lands of the upper Ottawa this autumn, but, possibly, none of them was more successful than Mr. F. H. Daniels, of Worcester, Mass., who, with two friends, penetrated beyond the height of land, south of Abitibi. The party shot three bull moose and a caribou. Mr. Daniels says the country he was in is a fine moose ground during the calling season, but that it would be inadvisable to go there after Mr. Daniels reached September 30. Montreal on October 1. The country he was shooting in lies to the northward of the great County of Pontiac, and, consequently, hunting is legal after September 1.

We make no apology for giving our readers an opportunity of reading the masterly article written by the Rev. James Outram on the Canadian Rockies, and which appeared in the English Illustrated Magazine for October. Mr. Outram is one of a half dozen mountaineers who stand head and shoulders above their fellov-climbers.

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The forests are becoming a practical problem indeed for Canada. A few days ago forest preservation was made the subject of a resolution by the business men of the Atlantic provinces, and the light which arose in the East has shone even to the farthest West, for, at the meeting of one of the provincial political parties in British Columbia held recently, among the resolutions adopted as the platform of the party was one to the effect that pulp lease provisions should provide for reforestation and for that purpose steps should be taken for the general preservation of the forests by guarding against wasteful destruction of timber.

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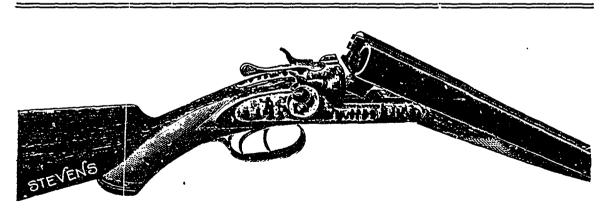
It is evident that the hammerless gun and high-velocity, smokeless cartridges for rifles have come to stay. Until quite recently, the hammer gun held its own fairly well with the hammerless; the latter when first brought out were intricate and fragile, and, hence, exceedingly liable to accident. The writer remembers a painful experience with a new hammerless, by a great English maker, although it happened almost twenty years ago. He went to Lake St. Peter duck shooting, and after a shot or two the gun became clogged, and as, with the tools at command, nothing could be done to relieve the situation, he had to forego a successful shoot. The memory of this affair lived with him for many years, and during that time he gave the hammerless gun a wide berth. But to-day the hammerless has reached a pitch of

perfection which makes it rank ahead of the best hammer gun that ever was built.

After all, there never could have been any reason for so much ponderous mechanism to accomplish so light a task as the giving of a blow sufficiently strong to ignite a sensitive cap. Once the eye has become accustomed to the trim lines of the hammerless, the hammer gun appears almost a monstrosity; especially if the hammers are of the old-fashioned kind that stand up pert as a cropped bull terrier's ears. And on the score of safety, the hammerless gun should be given the most credit ; there is nothing to catch in clothing, dog-lead, branches, or against the gunwale of a boat. So pronounced is the preference of British sportsmen for the hammerless gun, that several of the English gunmakers have given up the hammer gun, and decline to take orders for one, so it is said.

But another "improvement," introduced about the same time the first hammerless guns appeared, is not so generally approved as was once the case. A great many sportsmen consider that a thoroughly good cylinder is a better gun for upland shooting than a choke. Of course, for wildfowl shooting, where the shots are long ones and the birds unusually tough, the choke is by all odds the better, but for upland shooting, when a man has to snap at his game at distances varying from fifteen to forty yards, the cylinder will fill the game bag with greater certainty than the choke only the cylinder must be a good one, which means that it must have been scientifically bored, and such guns are hardly to be picked up for a ten-dollar bill.

The modern smallbore, smokeless rifle is rapidly driving the older weapon out of the field. Once upon a time, improvements to sporting weapons spread slowly enough, but to-day the big manufacture's advertise their wares so thoroughly, that hunters, even in exceedingly remote districts, soon know as much as their brethren of the cities with regard to each new invention. Go where you will; in the Rocky Mountains, adown the broad valley of the Yukon, in the great sub-arctic forests of Canada. or on the plains, you will find the modern rifle in the hunter's hand, his most cherished belonging, and the most efficient instrument civilization has yet produced for the utter undoing of the wild things of the waste lands. This is the only feature of the situation which should give us pause; how will it be with the game, now that the necessity of judging distance has been so far overcome that the tyro can kill with, almost, the same certainty as the veteran 'unter? But after all what profit is



The J. Stevens Arm and Tool Company, of Chicopee Falls, Mass., have brought out a new, double-barrelled shotgun, with smokeless steel barrels, reinforced breach, frame and parts drop forged, matted extension rib, top lever, treble bolt, low circular hammers, rebounding bar locks with steel works, solid plungers, patent fore-end checkered, checkered pistol grip, with rubber cap, rubber butt plate, choke bored and especially designed for smokeless powders. Machine-made throughout, and all parts are interchangeable Weighs about $7\frac{1}{2}$ lbs. It is made at present in 12 gauge and 30-inch barrels only. Price, \$25.00. there in such foreboding? Let us, rather, give thanks, because the smallbore rifle came in our time, while there was yet a little game to kill.

The stomach of a dog is a peculiar thing to see on the desk of an official of the United States Treasury, but that was the object which E. E. Schreiner recently spread out before him. Mr. Schreiner is chief of the division of redemption of the Treasury, and has become accustomed to receiving money under peculiar conditions. Even he, however, admitted the originality of the case in question.

"Dear sir." ran the letter which accompanied the stomach, "I send under separate cover stomach of my dog Fritz. I was playing with him to day, holding a twenty dollar bill up for him to jump at, when he suddenly leaped higher than I anticipated, grabbed the bill between his teeth and ran under the house, where he chewed the money up and swallowed it. I thought more of the \$20 than I did of Fritz—he was always chasing chickens—so I shot him and cut out his stomach. Please see if you can't paste the bill together and redeem it.

"The unique feature of this case," said Mr. Schreiner, "is that we found the bill, slightly chewed up, but sufficiently whole to identify and redeem. The man has received a check for \$20 by this time."

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Forest fires during the month of August were reported in the vicinity of Nelson, British Columbia, by which considerable damage was done to mining property. It is stated that the large stamp mill and other properties at Ymir were only saved after a fierce and prolonged fight by a large crew. On Vancouver Island there were also fires destroying thousands of feet of lumber and threatening houses and railways. There having been no rain since April, everything was in condition to assist the starting and spread of fires. A despatch of 14th September, from Victoria, states that immense fires are burning in the surrounding districts and that the town of Albernin is threatened. During the past months very serious fires have occured in the United States, in Washington and Oregon, resulting in the loss of life and much valuable property and timber. Fires of considerable extent have also occurred in Wyoming and Colorado. It appears to be a dry year on the West Coast.

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We have received a copy of the American Rifleman's Encyclopedia; a very useful collection of words and terms used by the riflemen of the United States, with copious explanations and many useful suggestions. Mr. A. C. Gould, the well-known American writer upon rifles and ammunition, is the compiler, and such a work could have been arranged by no higher authority. The Peters Cartridge Company are to be congratulated upon having brought out such a useful little book. The price is ten cents.

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His Excellency the Governor-General had some magnificent sport last month in the west. Shooting at Qu'Apelle, 400 ducks were bagged by the party in one week, and further west, as the guest of Senator Kirchoffer, at Moose Jaw, sixtyfive geese were accounted for in one day. On October 11 the Governor-General's party reached Poplar Point, Manitoba, and were again indebted to the Senator for some good sport. At York Lodge they enjoyed the same excellent duck shooting that His Royal Highness the Prince of Wales found exactly twelve months previously. Year by year these wonderful marshes of the west yield bags of duck such as men who confine their shooting to eastern preserves, never know.

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Horsey Uncle—" Well, my dear little girl, did you get down to the races in time to see the half mile trot for green horses?"

His little niece—"Yes, uncle; but did you know they were all brown?"

A sportsman has a few selected heads of Canadian game animals for sale. "Arctos," care of ROD AND GUN IN CANADA.

The great animal painter, Edwin Landseer, not only loved every dog he saw, but there seemed to be a clear understanding between this great-hearted man and the dogs he loved to paint. It is recorded that the late Queen Victoria once asked him how it was he gained this knowledge and understanding. " By peeping into their hearts, ma'am," was his answer. He seemed to possess a mesmeric influence over even the fiercest animals with which he came in contact, as the following incident illustrates. In company with a party of ladies, he was visiting at a certain house, and when the servant opened the door, out rushed three or four dogs, one a fiercelooking mastiff. The ladies recoiled in fear, but there was no cause for alarm. The animal bounded up to Landseer and treated him like an old friend with most expressive demonstrations of delight. One of the company remarking how fond the dog seemed of him, Landseer replied : "I never saw the dog before in my life." A dog seems to know by intuition who are his friends, and from whom he may expect kindly treatment or friendly recognition, and will follow a stranger having this virtue with every mark of confidence.

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The following letter has been received :

Some miles north of here a large band of caribou has been located. There is no trail in there, and I only can find out three white men who have been there, and the Indians do not hunt there as they cannot get out their game. I am anxious to form a party to go in and hunt next fall-it will require about forty miles of trail cut-so should have to arrange early. Knowing that your paper is always looking for new hunting grounds for your readers, I thought I would write and ask you to let parties corre-spond with me or put them in communication with me. I will guarantee from my own knowledge the finest deer shooting in British Columbia all the way to the caribou county, as well as couger, bear and small game. I had experience in handling such parties for some experience in nanounal Park. years in the National Park. W. H. DISBROWE.

Grand Forks, B.C. . 95

Baron von Plessen, of the German navy, registered in Winnipeg a few days ago. The trip through the west has come to be a sort of an annual holiday for the baron. This year he brought back a fine mountain sheep and six

goats, in addition to bea. and other game. The time was spent in the Kamloops country. The baron is now on his way to a region where he will endeavor to secure a few moose. He was sent to the grounds, where has enjoyed such fine sport, by the editor of this magazine.

A most excellent developer for the use of photographic films is as follows :

1.	Water,	12 0%.	
	Sodium sulphite,	3 02.	
	Ammonium bromide,	20 gr.	
	Citric acid,	60 gr.	
	Sulphuric acid,	I 07.	
	Pyro,	I OZ.	
2.	Water,	12 07.	
	Sodium carbonate,	.4 oz. ((if dry, 1 oz. 4 dr. 48 gr.)

For use with a normal exposure, take one dram of each stock solution, Nos. 1 and 2, and 2 ounces of water. This developer, though having pyro in it, neither stains fingers or plate and keeps Moreover, it yields negatives of well. beautiful printing quality and color that are quite free from veiling or greyness.

The Gore Kennel Club, of Hamilton, Ont., will hold a bench show about the middle of November. Full details are not yet to hand, but from the energy and liberality usually displayed by the fanciers of the Ambitious City they will equal if not surpass their previous efforts to provide an attractive premium list.

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Concerning the use of a hypo bath after the reduction of a photographic negative with persulphate, trials show that unless the reduced negative has been well washed after immersion in the sulphite bath, there is a tendency on the part of the hypo to still further reduce and weaken the image. Negatives well washed between the sulphite and hypo baths will not exhibit this tendency. In any event, the suggestion that a hypo bath is desirable is only intended to apply when the action of the persulphate has left a reduced stain in the reduced image and its use under ordinary circumstances is unnecessary.

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Mr. W. N. Hutt, who submitted the paper on "The Manager...nt of Woodlots" published in the report of the Canadian Forestry Association. has received the appointment of Professor of Horticulture in the Agricultural College of the State of Utah. While congratulations to Professor Hutt are in order on his selection for this important position it is regrettable that his services should be lost to Canada, as his practical knowledge of and great interest in the question of what might be called agricultural forestry has done much to help forward the movement for preventing and repairing the excessive denudation which has taken place in the older settled parts of Ontario.

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In these days when, almost, every Canadian sportsman is an amateur surveyor, the following remarks by Col. Sir T. H. Holdich. ex-President of the Royal Geographic Society, are worthy of Addressing the members of attention. the British Association for the Advancement of Science at Belfast recently, he said: "Once again, too, would I warn travellers of the utter uncertainty of all classes of barometric determinations for altitude. Very little has been done in recent years towards improving instruments of the barometric class, and meteorological science has not yet taught us how to deal with the constant variations in air-pressure produced over local areas by changeable weather. There are some countries where barometric records can hardly be regarded as offering a clue even to differential heights It cannot be too often insisted on that the determination of the relative heights of mountain peaks, and of the local value of refraction by means of the theodolite is as much the duty of the triangulator as is the fixing of those peaks in position for the topographer. From these again the altitude of positions in the plains can be safely determined by small instruments of the clinometer class without resorting to the barometer at all, although it may still be necessary to ascertain the value of one initial (or final) point which must be determined by many observations spread over a considerable length of time and synchronous with another set of observations determined at sea, or some already known, level. This, of

course, will occur only when a new geographical area is opened up to survey at some distance from the sea." During the past summer, travellers who have, of course, had only small aneroid barometers to depend upon, have challenged the heights heretofore ascribed to several of the peaks of the main Rocky Mountain range, but while it is not probable that any of the accepted heights were correct, it is likely that they were quite as correct as those that are now offered. The determination of heights, as Colonel Holdich remarks, is a most uncertain matter, when one has to depend upon the readings of an aneroid barometer that are to be compared with those of another instrument at a considerable distance. We, ourselves, have had the most remarkable results from such attempts. On one occasion, owing to having read the barometer on the summit of a mountain in the afternoon and at its foot the next morning, we found on comparing them with the readings of a standard eighty miles away that, according to these figures the top of the hill was several hundred feet lower than the base. Barometric surveying will occasionally give results that for weirdness rival Mark Twain's tunnel, which projected several hundred feet beyond the hill it pierced.

A country must possess considerable attractions when it can draw people of means season after season, and this is just what our Canadian wilderness seems to be able to do. As instance : An American medical man, Dr. Woodstock, of New Jersey, has visited North Bay each summer for the past thirteen years. He camps at Trout Lake, three miles from the city, where there is good fishing and a marvellously fine summer climate. Another medico who has the good sense to appreciate the Canadian West, is Dr. Shaeffer, of Philadelphia. This gentleman has taken his wife to Glacier, in the Selkirk Range, annually for a dozen seasons. These are but two instances out of many, but it proves that the claims Canadians make are well founded, and that from June until November the climate of western Canada is unsurpassed by any in the world. When, in addition

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to this fine climate the visitor has an opportunity to indulge in so many outdoor sports and recreations, he is assured that time will not hang heavily upon his hands. Botanizing, collecting, climbing, exploring and fishing may well fill the early summer, and then with the blooming of the golden rod and the flaming of the maple's leaf, comes the best time of all, when the grooved barrel shall sound the knell of some woodland or mountain monarch, and the trusty double carry disaster to many a plump chicken and mallard.

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Answers to Correspondents.

MANITOBA: You have not given the model of your rifle, so that it is impossible for us to answer your question, but if you own the model '89 use only the .44 calibre black powder cartridge. If, on the other hand, your rifle is of the model '94, you may use either the .44 black powder, or the .44 low pressure, smokeless powder cartridges. We have made enquiries from the manufacturers, and they say in reply, "We are not manufacturers of ammunition, but are manufacturers of rifles and shotguns. The ammunition manufacturers do not load the .44 calibre cartridges with a high pressure, smokeless powder, and our rifles are not made to take such cartridges. We do not know whether the ammunition manufacturers intend to place a .44 calibre, high pressure cartridge on the market or not."

J. DUFOUR: Wahnapitae Lake, 14 miles from Wahnapitae station by road, or 18 by river (with six short portages), yields good grey trout fishing in October.

VICTIM: Hay fever is practically unknown west of Mattawa. Within reach of North Bay, there are no better fishing places than the Manitou, and Goose Islands, and the French River.

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Communications on all topics pertaining to fishing, shooting, canocing, 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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THE objects of the CANADIAN FORESTRY ASSOCIATION are:

The preservation of the forests for their influence on climate, fertility and water supply; the exploration of the public domain and the reservation for timber production of lands unsuited for agriculture; the promotion of judicious methods in dealing with forests and woodlands; re-afforestation where advisable; tree planting on the plains and on streets and highways; the collection and dissemination of information bearing on the forestry problem in general.

ROD AND GUN is the official organ of the Association, which supplies the articles relating to Forestry published therein.

This Association is engaged in a work of national importance in which every citizen of the Dominion has a direct interest. If you are not a member of the Association your membership is earnestly solicited.

The annual fee is \$1.00, and the Life Membership fee \$10.00.

Applications for membership should be addressed to the Treasurer,

R. H. CAMPBELL,

OTTAWA, ONT.

Department of the Interior.



Savage Arms Company Utica, N.Y., U.S.A.

Manufacturers of Savage Magazine and Magnetic Hammers





CANADIAN BIG GAME

THE time for the falling of the leaf has come: the law now permits the shooting of the moose, caribou and deer — and wouldn't you care for a head or two yourself?

Well, why not try Quebec, Ontario, Manitoba, or some other of the sisterhood of the Conadian Provinces? By such a choice you would probably be successful beyond your expectations, as many others have been. Only the other day a wellknown physician of Winchester, Ky., wrote: "I met you last summer at Hotel Bellevue. Timiskaming, and you bindly located a camping party for me on Ostaboining where they had fine sport, getting several moose, deer and fine fishing. I wish to get some information regarding, etc."

Equally trustworthy information is AT YOUR DISPOSAL. Ontario has thrown open her jealously guarded big game preserves, the shooting of moose, caribou and deer being now permitted from October 15th to November 15th north of the main line of the Canadian Pacific Railway, from Mattawa to Port Arthur, a region enormous in extent and carrying a heavy stock of game.

The great province of Quebec yet holds its own as the home of vast quantities of deer, and the giant bull moose bathes and feeds in the great Lake Kipawa as of yore. Last Autumn a head obtained in this region by a Montreal sportsman spanned 62 inches. The Gatineau, an important tributary of



the Ottawa, flows through one of the best deer ranges of the continent, while the Lièvre, Rouge and Nord drain similar and almost equally well-stocked regions.

Further east the St. Maurice, a stream 400 miles from source to mouth, traverses a land of rock and barren which the moose, the caribou and the bear find very much to their tastes.

Manitoba is as noted for its moose as for its duck and chicken, and those who can spare the time may ensure a successful hunt by visiting the Prairie Province. Beyond lie the Territories and British Columbia, with their hundreds of thousands of square miles of plain, forest and mountain, offering unsurpassed hunting for moose, elk, blacktail, sheep, goat and grizzly.

For further information write to any officer or agent of the

Canadian Pacific Railway

Or to the GENERAL PASSENGER DEPARTMENT, MONTREAL, QUE.





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