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# ROD AND GUN IN CANADA



A Hudson's Bay Express

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OF CANADIAN SPORT  
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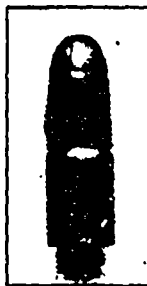
## AMERICAN HIGH VELOCITY BULLETS.



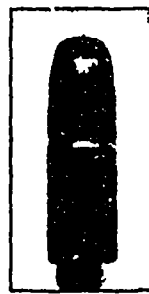
No. 1



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No. 11



No. 12



No. 13

No. 1—	.236, 112 grs.	S. P.
No. 2—	.25-35 W., 117 grs.	"
No. 3—	.30-30 W., 160 grs.	"
No. 4—	.303 Sav., 195 grs.	"
No. 5—	.30 U. S. Govt., 220 grs.	"
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# ROD AND GUN IN CANADA

VOL. IV.

MONTREAL, FEBRUARY, 1903

No. 9

## High Velocity Cartridges.

(I.—AMERICAN.)

BY CHAS. A. BRAMBLE.

The black-powder rifle is passing rapidly into disuse and will, apparently, in the not very distant future, be as much out-of-date as the Brown Bess. Its place has been won by a weapon firing a charge of a smokeless nitro compound, capable of giving a much higher velocity to a projectile than black powder. The absence of smoke is, of course, an enormous advantage, but the modern compound, — I speak of all the new powders collectively, they having a strong general resemblance—boasts of others yet more valuable. For instance increased velocity gives a flatter trajectory, since gravity acts in proportion to the square of the time, and a flatter trajectory does away with the necessity for a part at least, of those calculations as to distance, so vital in the case of the earlier rifles, though much less so in the later ones. Also, the energy of a projectile being equal to its weight, into its velocity squared, divided by twice gravity, it follows that the energy—often called striking force—of the modern projectile is vastly greater than that of its predecessors.

One drawback the modern charge certainly has. The life of a barrel is much shorter than formerly, especially in the case of military weapons, of .30 caliber or less, firing a steel-mantled bullet, and in which the powder charges used may give breech pressures running up to 60,000 lbs. The resistance the air

opposes to the passage of a bullet is governed by the velocity of that bullet, and by the shape and area of its point, but not by its length, excepting to an almost infinitesimal amount. But, the greater the weight the greater the momentum at any stated velocity; and the greater the momentum the more effectually is resistance overcome. Hence, the weight of the bullet has been increased by adding length, until projectiles of four diameters have taken the place of shorter bullets wherever great range is desired.

But it was discovered that a long picket-shaped projectile, of lead, even when alloyed with a considerable percentage of tin, could not stand the increased pressure and accompanying velocity obtained through the use of nitro powders without stripping, (*i.e.*, leaving the grooves and passing down the barrel, being shaved in the process to the diameter of the interior of the barrel from land to land), thereby rendering accuracy impossible and greatly shortening range, through the absence of rotation to keep the bullet point foremost, and because of the escape of gas by way of the grooves.

To overcome this defect the projectiles were coated with a thin mantle of some harder material, such as steel, cupronickel, or alloys of a similar character. This device proved effective, and, moreover, the bullets thus protected showed

a power of penetration greatly in excess of any previously noted, and highly desirable for military purposes.

Unfortunately, this extreme penetration becomes an actual disadvantage under certain conditions (such as usually obtain in sport), and great disappointment was caused at first by the feeble stopping power of these bullets when used against big game. It was soon discovered, however, that by filing the extreme point flat, or by leaving it without mantle, or by other equally simple variations of the standard military projectiles, the bullet would expand upon impact, showing much less penetration, but making a larger orifice, thus producing equal effects upon animal tissues to a leaden, low-velocity bullet of wider caliber.

The foregoing will serve as an introduction to the series of bullets that represent the latest advances of American manufacturers.

The smallest caliber for which a high velocity, nitro-cartridge, suitable for military or hunting purposes, has been manufactured in the United States is the .236. The point blank range of this cartridge fired from a suitable rifle is for military purposes between 600 and 700 yards, within which the trajectory of the bullet is so flat as to make the entire range a zone of danger, and at a range of 1000 yards the bullet rises at the highest point of its trajectory but 24 feet. The rifling must have turn of 1 in  $7\frac{1}{2}$  inches to keep this bullet of 4.23 diameters point on, and consequently the breech pressures must be high, and nothing but steel having a high tensile strength will bear the strain. The rifle manufacturer has, however, at his command a choice of material which permits him to indulge in charges giving even higher pressures than this with perfect safety. As a sporting weapon with soft-pointed bullets the .236 has not been in such request as the larger calibers, yet there can be no doubt it is sufficiently powerful to account for any American animal if its bullet be accurately placed. The striking force is 1563 foot pounds, while the Ojibway hunter kills his moose, caribou and bear with a 44-40-200, the energy of which is but 691 foot pounds. With a soft-pointed

bullet, the charge under consideration has a far more damaging effect, than those not intimately acquainted with the power of the high velocity charge will credit.

The .25-35 Winchester and the .25-36 Merlin may be considered as identical, for the charge is in each case 21 grains of Dupont or Laffin & Rand .30 caliber smokeless powder and a half-mantled bullet with soft lead point, 117 grains in weight. This cartridge is extremely accurate, strings of 10 shots within a 4-inch circle at 200 yards being quite possible, and is naturally pleasant to shoot, but its energy being but about 1008 foot pounds, such a charge should be reserved for animals not exceeding the Virginia deer, and the antelope. While the .25-35 would undoubtedly be sufficiently powerful for any animal under conditions favorable to the shooter, the sportsman always prefers to have a little power to spare. One great advantage of this caliber is that a short range cartridge with lead bullets of 67 to 86 grains and 20 grains F.F.G. black powder, or 8 to 10 grains of Laffin & Rand's "Sporting Rifle Smokeless," may be used with excellent results upon small game up to at least 100 yards.

The 30-30-160 is one of the most popular cartridges we have. It is a delightful charge, having great accuracy, considerable killing power, and giving a recoil which is insufficient to be unpleasant. Moreover, a light rifle may be used, and the breech pressures are very moderate. This charge is effective for antelope, deer, and, under favorable conditions, for caribou and moose, but it is not recommended for grizzly, or for sheep, and is not as sure in its results upon even moose and caribou as later and more powerful cartridges. The 30-30 will kill any game we have on this continent, but the bullet must be excellently placed to bring down in its tracks an old bull moose or a silvertip in good health and condition. With a 1 to 20 lead bullet of 100 grains and a charge of 10 grains of Du Pont No. 1, Laffin & Rand "Sporting Rifle Smokeless", or 10 grains E. C. "Smokeless Rifle Powder, No. 7" the 30-30 makes an admirable weapon for small game up to 100 yards.

A charge which is much used by big game hunters, being a deserved favorite, is the .303 Savage. This rifle is of the same caliber as the British Lee-Metford. It is identical with the U. S. Government rifle except that it fires a lighter bullet, which has a velocity of projection 100 feet less than the 30-40 as made for sporting rifles. The Savage line of cartridges is a long one, including bullets of the following weights: 180 grs., 195 grs., 185 grs., (patched) and two of 100 grs., each.

Several of the great powers have adopted military weapons of about .30 caliber, the United States being one. The Service bullet is, of course, fully mantled, and is capable of penetrating 58 dry pine boards  $\frac{7}{8}$  in. thick at 15 feet from the muzzle, but the soft point bullet used in sporting cartridges will only penetrate 13, which shows that the bullet expands to something more than four times its original area on striking. The 30-40-220 will kill any animal, even the elephant falling to a single well directed head shot with a full-mantled bullet, but there are numbers of men who believe its "shock" is not powerful enough to disable dangerous and tough game under certain conditions. The trajectory and accuracy are quite up to modern requirements and, personally, I am of the opinion that the 30-40 is good enough for any beast on this continent.

The Winchester and Marlin companies each has a .32 caliber, high velocity, cartridge on the market, and their ballistic data are practically the same. The old 32-40-165 black was almost the most accurate 200 yard charge ever produced, and this same cartridge may be substituted for the high-velocity load for target work or small game shooting, so that the weapon of this caliber with special steel barrels must be considered as a wonderfully useful rifle.

In the .33 Winchester we have an unusually desirable cartridge, superior to the 30-40 on account of the greater area of its bullet, notwithstanding that its energy is a trifle less. Another advantage of the 33-200 grain bullet is that its range is not quite so great as the military bullet, its weight being less and the resistance it offers to the air con-

siderably more. This is a new cartridge and has had but one season's trial upon game, but there can be no doubt as to its being an admirable one.

Following the lead of the English makers who are going in for very powerful nitro-cartridges to take the place of the partially obsolete .500 and .577 Express rifles, the Winchester Repeating Arms Company has put a .35 rifle in the market which should go a long way toward satisfying those who crave for more "power." With the possible exception of a real-old-fashioned, 1000 lbs. grizzly, it is hard to see what we have in Canada able to stand up after getting a shot from this new rifle. With its 2685 foot pounds of energy there is but one American rifle more powerful, and that has neither the range nor the accuracy of the .35. For deer and antelope I regard it as quite too destructive, but for elk, moose, sheep and especially grizzly it will prove a handy weapon.

The old .38-55, with a bullet varying from 250 grains to one of 330 grains, for target purposes, is undoubtedly the most accurate 200 yard charge ever produced, and there is no doubt the manufacturers were well advised when they decided to make barrels of special, smokeless steel that should permit of the use of a moderately high velocity charge as an alternative to that of black powder in this caliber. The .38 Marlin has a velocity of 1650 feet, which, joined to a fairly heavy bullet, gives a striking force approximately equal to those of the .32-40 and .32 Winchester special. Of course, the trajectory at short range is not quite so good, but, on the other hand, the diameter of the bullet is greater, a point some shooters insist upon.

The .40-65 high velocity is a cartridge that is comparatively little used in Canada, though it should prove fairly satisfactory upon any game we have in North America at moderate ranges.

Three cartridges remain to be considered, and they deserve especial attention, seeing that they may be used in rifles already highly popular, and have been devised with such consummate skill that, notwithstanding their high muzzle velocities, they produce so moderate a breech pressure as to render the use of ordinary

steel barrels and actions constructed to resist black powder strains, perfectly safe. The description of these cartridges by the Winchester Repeating Arms Company, which produced them as a result of long and costly experiments, is as follows :

"These cartridges, although they give high velocity and great muzzle energy, develop only slightly increased initial pressure. By their use owners of Winchester Model 1886 rifles, of the calibers mentioned, can greatly increase the power of their guns. With the great increase in velocity which these cartridges have, their trajectory is proportionately flatter, and at 200 yards, their remaining energies are practically the same as those of the small caliber, high-power cartridges. It is a desirable feature of these cartridges that they can be used by persons who fear to use the high-power small caliber cartridge on account of their great range. These points considered, and the fact that the results are obtained with bullets of large cross section, make

these cartridges unsurpassed for striking and killing power at the distances at which most game is killed."

These claims may easily be substantiated, and it is undeniable that the .50-110, with its 3345 foot pounds of energy, is the very weapon to stop a grizzly, and those who regard the moose as a tough beast will find in this cartridge what they have been dreaming of for years. They will not be satisfied, because the soul of the rifleman who demands "more power" can never in the nature of things be satisfied. Now that an American rifle has been produced, handy, sufficiently accurate for sporting purposes, and having a striking force of over 3000 foot lbs., it is morally certain manufacturers will be entreated to turn out something yet more destructive, and the English .450 with its crushing blow of 5000 foot pounds, and even more terrific weapons, will be pointed to in envy.

But what game have we in North America demanding such bombardment?

BALLISTIC DATA OF AMERICAN HIGH VELOCITY CHARGES.

Nominal Caliber	Diameter of Bullet	Weight of Bullet	Velocity in feet per second	Penetration of $\frac{1}{2}$ inch Pine Boards	Energy or Striking Force	Powder Charge	Trajectory 100 yards	Trajectory 200 yards
.236	.244	112 grs. S.P.	2550 ft. sec.	12	1563 ft. lbs.	32.4 grs.	0.76 in.	3.48 in.
.25-35	.258	117 "	1925 "	11	1008 "	21 grs. .30 cal. (Du Pont)	1.32 "	6.21 "
.30-30	.306	160 "	1934 "	12	1330 "	29 grs. .30 cal. (Du Pont)	1.37 "	6.35 "
.303 Sav.	.311	195 "	1900 "	13	1561 "	28 grs. L. & R. .30 W. A.	1.23 "	6.25 "
.30-40	.308	220 "	2000 "	13	1953 "	34 grs. .30 cal. (Du Pont)	1.22 "	5.47 "
.32 W. Sp.	.320	165 "	2062 "	12	1557 "	23 grs. L. & R. light'ng smok'less	1.23 "	5.95 "
.32-40 M.	.320	165 "	2062 "	12	1557 "	23 grs. L. & R. light'ng smok'less	1.23 "	5.95 "
.33 W.	.336	200 grs.	2056 "	13	1876 "	29 grs. L. & R. lightning No. 2	1.21 "	5.78 "
.35 W.	.358	250 "	2200 "	15	2685 "	( ? )	1.03 "	4.73 "
.38 M.	.375	255 "	1650 "	14	1540 "	26.5 grs. L. & R. lightning No. 2	( ? )	7.86 "
.40-65	.403	253 "	1700 "	12	1622 "	33 grs. L. & R. lightning No. 2	( ? )	8.75 "
.45-70	.456	300 "	1888 "	13	2379 "	30 grs. L. & R. sharpshooter	1.47 "	7.40 "
.45-90	.457	300 "	1992 "	14	2641 "	33 grs. L. & R. sharpshooter	1.41 "	6.63 "
.50-110	.510	300 "	2242 "	14	3345 "	45 grs. L. & R. sharpshooter	1.07 "	5.82 "

## Spring.

BY WILLIAM HENRY DRUMMOND.

Have you ever heard the mountains calling in  
the spring,  
Or the whisper of the river sliding by?  
Have you ever paused to listen for the Mal-  
lard's whirring wing,  
Or marked the grey goose column on the  
sky?

January, 1903.

Have you ever seen the partridge drumming  
near the bend  
Where the alders shade the tiger of the  
stream?  
Have you ever kicked yourself all over, my  
dear friend,  
When you woke and found "Alas! 'twas but  
a dream"?



## The Death of a Dog.\*

BY "A FRIEND."

"For those of his friends who will remember him, and for those who would know of the climbers, as well as the mountains to be climbed in this region, we write this record of 'Fritz.' It is fitting that this short sketch of his life should be recorded at Glacier, for here his privileges were many, his admirers numerous. At Glacier he was loved; near Glacier he died, and here he is mourned as a good friend should be. He was a beautiful dog, a black setter with a dash of retriever in him. His eyes were his winning point. They were irresistible, big, soft, honest.

"He was a gentleman, too, every inch of him. He always acknowledged any friendly advances with dignity, though you could see his master was his one absorbing admiration.

"He began life with a desire for bird-hunting. This ended, when in 1898, at the age of two years, he discovered there was more serious business ahead of him, and joined the photo-topographical survey of the Canadian Government, then being made in the east foothills of the Rocky Mountains in the interest of irrigation. His two greatest pleasures were to run with the horses, and accompany his master to any summits where photographs were to be taken for mapping purposes. His honesty was always to

be relied upon. No food was touched, no matter how tempting, if forbidden, and his toilet was as immaculate as his manners. In 1900 he accompanied the survey party which was gathering data for a topographical map of the Crow's Nest coal lands in south-east British Columbia, and never missed a climb or flying camp, throughout the work.

"In 1901 he first came to the Selkirk Mountains, at which time a topographical survey was commenced along the line of the C.P.R.

"It was here that he really made his mountain-climbing record, and has left friends behind in numbers, to remember a brave climber. Among those mountains which he overcame successfully were: Swiss Peak, Mts. Avalanche, Grizzly, Cheops, Abbott, Cartier, Mackenzie, and many other points less elevated. The two on which he failed were Mts. Lookout and Napoleon, owing to the perpendicular cliffs.

"In this same year he had a narrow escape with his life. Faithfully following his master, they were caught on the long trestle bridge immediately east of Twin Butte, by an approaching train. Seeing nowhere to go, he just stood in the centre of the track wagging his tail. Fortunately a man sitting on the pilot kicked him to one side, the pilot did the

\* Extracted from the *Minute Book of the Glacier House, B.C.*



rest. Scrambling along the edge, he came to where his master was hanging to the timbers of the bridge, and remained quiet until the train had passed. It is said his master barely saved himself in his efforts to shield Fritz.

"In 1902 Fritz and his master again came to the Selkirks and the list of climbs was increased. He first ascended the two peaks at the head of Cougar creek, then the peak formerly known as Mt. Roy. Next he conquered Rogers Peak—the highest point of the Hermit range. An attempt on Mt. Bonny very nearly ended disastrously. While ascending Mt. Swanzy, preparatory to reaching Mt. Bonny, he slipped on a steep ice slope, and rolled in a series of catherine-wheels a depth of three hundred feet, finally dropping over a ledge. It was supposed he was killed, but soon he appeared lower down, wagging his tail, and resting before again attempting the climb. The party proceeded on its way, as it was known he could not ascend. On the return it was necessary to make a detour by the Swanzy névé, and when opposite the spot he was whistled for, fully -believing, however, that he had returned to camp. A faint whine far aloft showed where the poor old fellow hau patiently awaited the return of his friends. He regained the party with bleeding feet, and very stiff, but none the worse otherwise. It was on the next trip he lost his life, and here I use his master's words. 'We had crossed the Geikie glacier, and camped by the Dawson morains. An ascent was being made by the rock point immediately to the north across the Geikie glacier. It was a difficult place, and the party had no rope. The old dog was getting very much excited, as he began to see his finish, so far as the ascent was concerned. A critical point had been reached, and we were slowly climbing one at a time. Fritz was lying quietly on a rock awaiting developments; as the last man crawled up, he sprang to a rock near by, slipped off and commenced falling down

the slope. The slow motion was soon changed to leaps and bounds; for the first three hundred feet he never uttered a sound. He then struck the rocks, gave two faint yelps and silence followed. The rigid struggling body became limp, struck the shale, rolled over and over, till at the edge of a precipice it stopped, at a depth of 700 feet below us. A few yards more would have carried it over the brink and it would have gone down 3,000 feet.

"The body never stirred after it stopped. Poor old Fritz was dead! We looked at one another in silence. The chief simply remarked: 'We'll go no further but get back, if we can.' Having completed the work at the station selected, we climbed down, and setting the poor old chap on a bare spot, covered him round with moss, and then built a stone cairn over him, erecting one slab high above the others, on which was inscribed, as well as could be done with an ice axe, the single word "Fritz." There was no time for more. The sun was setting and there were still 3,000 feet of stiff rock work.

"A clean, clever, faithful dog! He died doing his duty as he saw it. May we all be as faithful and as consistent in its execution. He now lies not far below the eternal snows, while the bright stars look down and the soft clouds wrap him in slumber, with no further troubles of icy slopes and rocky ridges. From the camp by the Dawson moraine, the morning sun just touches the stone on which his name is inscribed. If there be a happy hunting ground for dogs he is there. And may he live in plenty, for on this earth his commons were often short. He took what there was to be had without complaint, a wag of his tail for "thank you." On flying trips, a few pork rinds often constituted his only meal, or what could be spared from the scanty rations of the party. No matter how scanty the morsel, he was always content, and would rather die than steal. Poor old Fritz! We miss you!"



## The Snowshoe.

BY C. C. FARR.

The snowshoe is the Indian's winter canoe. Without it, in winter, he would be as helpless as he would be in summer without his canoe, and to realize how helpless that would be one has to know something about the country in which he lives. First and foremost, there are absolutely no roads, except the trail made by the Indians themselves, leading from one lake to another, which, except by the initiated, are hardly distinguishable from the paths of wild animals. Upon the banks of the stream, at every rapid, the same kind of trails are found. We call them "portages." The Indians call them "o-ne-gum," and the rest is trackless forest. We can imagine then, what the Indian would be able to do in the summer without his canoe. In winter, he would be just as helpless without his snowshoes, for in these northern latitudes the depth of the snow varies from two feet to four; in fact so important are these two things considered among them, that it is with them an unwritten law, that neither canoe, nor snowshoes, if found put away by the owner, anywhere in the bush, shall be molested, on account of the desperate straits the owner might be put to in case he should need them, and find them gone.

There are several kinds of wood used for making the frames: chief amongst which are the ash, the white birch, the yellow birch, the maple, and the tamarac, the latter, however, is only used in the far north, where the other woods are scarce, or of stunted growth.

The Indian name for the ash is "ar-gi-um-ah-tik," "snowshoe wood," but it is not used in this locality very much as it is stringy, and peels off, besides, it absorbs the wet, and lacks the necessary stiffness for a serviceable snowshoe, in all weathers. The white birch is a good deal used, but mostly for sale. It is not durable enough for an Indian. The maple makes a good strong frame, but is too heavy, and is

hard to work. The wood, "par excellence," is the yellow birch. It is light, strong, and durable, and is easily bent into shape. It is not every tree that will make good frames. If the grain is twisted it is of no use. If there are many knots in it they may cause it to break in the bending. The very best tree for the purpose is a sapling, one with smooth bark and of healthy growth.

The tree is first cut down, and a length cut off it, say about nine feet, according to the size of the snowshoe required. It is then split into pieces of about the thickness required, which are dressed down with the axe roughly, and carried home to be completed at leisure.

The "crooked knife" is now brought into use. This is a tool, the use of which is almost entirely confined to Indians. It is a thin piece of steel, curved up at the end, and bound on to its wooden handle by a deerskin thong. It is to the Indian, his plane, drawknife, and spokeshave, all combined into one, and it is wonderful how expert in the use of it the Indian becomes, putting a finish to his work that would not disgrace both plane and spokeshave: so with this implement, he goes to work, and pares down his timber to the required size. The Indian name for this tool is "moko-tah-gan," probably derived from the root "muk," to bite. For instance, "mug-gash-ka," "rough water," meaning "water ready to bite you;" "muk-wa," "bear," some one that will bite;" "mok-kuj-i-gan," "a biting thing," "a plane," "mok-o-man," "a knife," etc.

As soon as the stick is whittled into shape, a kettle is brought into requisition, and with the help of a rag, the wood is thoroughly soaked and softened, so that it can be bent by careful manipulation to the required shape, in which shape it is left until it is thoroughly dry, and set.

Regarding the shape of a snowshoe, tastes differ, though the Indians are unanimous on that point. They like a wide shoe, and one not too long, for the

simple reason, that a long shoe makes walking through a thick bush difficult, and has a tendency to cant, when the snow is soft, and deep. Of course, on the northern plains, where the snow is wind-driven, and hard, it is different, and there the very long shoe is used almost entirely. It is very narrow, and has a turned up toe, and is admirably suited for the locality in which it is used, but would be nearly useless here, in this land of tangled bush, and of soft yielding snow.

But to the snowshoe frames, which by this time have assumed their permanent shape. The next thing to be done, is to cut the mortices for the cross bars, insert them, and bore the holes for the filling: when this is done they are handed over to the women, whose task it is to fill them.

Nearly any kind of skin can be used for the filling, such as moose, caribou, deer, bear, and even beaver, but the best of all these is caribou, for the reason that it does not stretch when wet, but rather tightens.

First of all the rope, or cord, which runs round the whole frame on the inside, has to be attached, and then the "mater brand," which is that many stranded band, passing across the shoe, and on which the ball of the foot rests and which is the main support of the filling.

The coarse or heavy knitting, made by cutting the thickest part of the hide into strips, called by the Indians "askim-mon-ei-arb," is now filled in, and last, the fine knitting, "at-tib-bisk," at toe and heel.

It is quite an art, this "filling" of snowshoes, as it is called, and there is just one way of doing it. It is like one of those labyrinthine puzzles, that are a delight to the lover of puzzles. There is just one spot at which to begin, and if you do not strike that, you will not get there.

The strips of hide have to be wet, so as to be soft, and pliable, and are usually rolled into a ball, so as to be more conveniently handled.

The snowshoe is now complete, except the strings, which are made from the tanned hide of any large animal. There is a good deal affecting comfort in the tying of a snowshoe. One of the greatest mistakes made, is tying them too tight, and many a sore toe is the result; only in a thick bush are tightly tied strings possible, for they enable one to guide the point of the shoe with more precision. On a beaten track, or on a lake, a loosely tied shoe is far easier, and less likely to do injury to the foot.

Should the string threaten to drop down over the heel, a crotched twig stuck into the moccasin string at the heel will stop it.

On a long trip, extending over a week through soft snow, it is another matter. However well adjusted the strings are they will probably bring blood, except in the case to those who are thoroughly hardened. Changing the snowshoes from right to left and "vice versâ" will some times obviate the difficulty, and bring relief. I myself have sometimes used rabbitskin, a remedy recommended by an Indian, and no doubt it would cure the whole thing, if one could only get it to stay there. I found, by experience, a small piece of diachylon plaster placed over the afflicted spot the most effective remedy, and if that failed, then there was nothing to do, but grin and bear it, and hope for a beaten track, where one could walk without the snowshoes.

One of the most important things in snowshoeing is, to keep your snowshoes dry; especially in bitterly cold weather; otherwise they will "load up," that is become clogged with ice and frozen slush, so that, they become a weary load to drag along, and the unaccustomed exercise of certain muscles of the legs brings on "mal de raquette," the snowshoer's scourge.

There is another kind of snowshoe used by the Indians. It is made by bending a stick into the shape of an egg, or a beaver skin stretcher, on which the youngsters usually made their first tentative efforts. They are often filled with string, and are very quickly made.



**FRITZ, THE "CLIMBER"**  
Whose untimely death in the Selkirks is described in this issue



**AN HISTORIC ROUTE.**  
This snapshot was taken on the French River, the waterway used by the old explorers of the North-West



"TAKU JACK," TAKU ARM, B. C.  
Freight that cost five dollars a pound to move.

## Breaking to Retrieve.

BY H. B. T.

If it were desired to teach a boy a certain accomplishment, and if he were made to perform certain parts without understanding the application, he would lack interest in his lessons, and only learn them because he felt obliged to. If the lessons were made as interesting as possible at first he would learn more quickly and be prouder of his knowledge when gained, and more cheerfully willing to exhibit what he had learned. The intelligent dog, by learning first to hold, carry and deliver an article, and being praised and petted for doing it, through being made to understand the object, begins these lessons in retrieving by feeling proud to perform a simple action which procures him so much approval from his master. He will then in later lessons be more inclined to do what is required of him, quickly and cheerfully.

Check immediately any inclination to playfulness on the dog's part during the lessons, and avoid it yourself in trying to encourage his cheerfulness in going forward to retrieve, or in seizing the article used. Make him perform all parts of his lessons in a steady, business-like manner, and if he is inclined to a playful manner of retrieving his birds, by pouncing upon or mouthing them, check him at once and make him do it more steadily. Make him sit squarely facing you when delivering the bird or other object, and do not pull it from him, but make him release it, and if he tries to seize it again tell him sharply to "Stop that," and if necessary tap him smartly on the muzzle, then, placing it in his mouth again, make him deliver it properly. These little tricks, if corrected at the time, may save much future trouble. Until you can depend upon his steadiness, if you have reason to believe that the bird is only wing broken, make the dog stay down while you catch the bird yourself; then, after killing it, throw it out and allow him to retrieve it. This sort of treatment will generally prevent his becoming "hard mouthed," and will be much less work than trying

to break him after he has become so. At the beginning of his lessons use a corn-cob or a tight roll of paper, tied to prevent its unrolling, and small enough to make it unnecessary for him to open his mouth widely to receive it. After he has learned what is required of him, this may be changed for one of about the circumference of a quail's body, and later for one of the size and weight of a grouse. Do not use anything heavier or more awkward for him to hold, or he will be apt to develop the habit of holding it too tightly.

The principal object at first is to make him understand what is required of him and how he is to do it. When this is thoroughly understood the whip may be used to compel him to do it. First make him hold the roll in his mouth until you take hold of it and tell him to let go. It will probably be necessary to open his mouth and place the roll in it. Do this by placing the hand over his muzzle with the fingers on one side and the thumb on the other and pressing his lips against his teeth. Do not pinch his lips to hurt him any more than is necessary to make him open his mouth a little way, when the roll may be quickly pressed in cross-wise from in front. He will probably try to drop it at once, and to prevent his doing so as quickly as possible get hold of his collar or the loose skin of his throat, and while in this way preventing him from pulling away from you, press upward against the lower jaw. In spite of all you may do to prevent it he will be likely to succeed in dropping it a few times, as he may struggle at first; but by holding him firmly and with the assistance of the other hand in either holding the roll in place or holding his jaws together by a light grasp upon his muzzle, he will soon become resigned.

This process may require some quickness and dexterity, but will be successful with the exercise of a little patience. When he has consented to hold the roll without trying to drop it, encourage him by stroking his head and speaking

kindly to him. If at this time he should try to drop it again, check the attempt if possible, but if not, place it again in his mouth and make him hold it until you take it from him, thus making him understand that a word of praise is not permission to drop it, and that he is to hold it until you command him to let go. It will save trouble during this part of the lesson if the dog is made to sit in front of you. If he attempt to come forward, step on his toes and force him to sit down again, as otherwise he may bother you by trying to press his head close to you or between your knees, and it is well also to have a check cord on him to prevent a possible attempt to leave you.

After he has been made to hold the roll until it is taken from him, the lesson will be sufficient for the time. At the next lesson teach him to sit holding it while you move away from him; then call him and make him sit to deliver it. He will probably drop it at first and attempt to follow you, but the attempt must be checked and he be made to wait until he is called. Go to him and after placing him in his former position, replace the roll in his mouth. There will be opportunities during these lessons to get him accustomed to words of warning such as "Wait," "Careful" or "Steady." When he will wait until called and deliver the roll properly, do not attempt to teach him more until the next lesson. Go slowly, teach one thing at a time, be sure of making him do what is required of him before ending each lesson, give him plenty of praise and encouragement when he does well, and before each lesson make him do what he has learned in the preceding one. At certain times he may show more obstinacy than usual. At such time, rather than prolong the lesson, end it as soon as he shows, though ever so sulkily, that he is willing to give in; but make him do it thoroughly at the next lesson.

As the next step, teach him to take the roll from your hand. Hold it close to his lips and tell him to fetch it. If he turns his head away follow the movement so as to keep the roll in front of his lips and show him that he cannot avoid it, by repeating the command

"Fetch it." If he seems inclined, however reluctantly, to take it, press the roll into his mouth as soon as he opens it a little, and speak encouragingly to him as though he had done it all himself. Next teach him to step forward and take it by holding it farther away from him and motioning him toward you with a snap of the finger, while at the same time telling him to fetch. He should have learned the meaning of this gesture in former lessons, and although he may not obey it promptly under these circumstances, it will help to teach him your meaning. Use the check cord if necessary to make him come forward, and if he does not respond readily to the cord, use the whip on his rump to make him do so, while holding him by the collar to prevent his jumping away from you, and when necessary, guide his head toward the roll by grasping his muzzle. As the lesson advances, lower the roll toward the ground until he will lower his head to take it from your hand when held so as just to clear the ground. As he starts to take it, rather help him to adjust it in his mouth than to move it away from him.

Making him carry the roll three or four steps every time before taking it from him will serve to keep in his mind the object of his lessons and make a little variety in them. It will make no difference whether he sits, stands or crouches while you are trying to make him take the roll from your hand, so long as his attention is kept upon it and he can be made to come forward when necessary. Allow him plenty of time to do things himself in obedience to orders before you resort to punishment to compel him to do so. Make the dog understand that he cannot avoid doing as he is ordered and that the sooner he does it the sooner the lesson will be over. This part of the lessons will require considerable patience, but will pay in the end, and is good discipline for the breaker as well as for the dog.

Before teaching the dog to pick up the roll from the ground it will be well for him to have become accustomed to carrying the larger sized roll and learn to open his mouth wide enough to take into and hold firmly an object as large as the body of a grouse. The most

business-like manner of retrieving is to take a firm hold of the bird's body. In this way, particularly when the bird is only wing-broken, it can be more easily carried through the brush and lifted over briers, and the dog is less apt to get into a way of mouthing or tearing his birds.

To make him pick up the roll it will be better at first to help him if he is inclined to mouth it before taking hold firmly. After that the time will have arrived when it will probably be necessary to use the whip to make him pick it up himself properly and promptly. After whipping him, call his attention to the roll and make him grasp it properly by helping him if necessary, but it will probably not be necessary more than once or twice.

At the next lesson, after getting him so that he will pick it up promptly, toss it a few steps from you, and after ordering him to go on, accompanying the order with a motion of the hand in the direction of the roll, walk with him and direct his attention to it. Make him pick it up as before, and end the lesson when he has done it fairly well. During this lesson keep the check cord in hand, allowing him plenty of slack cord, unless it is necessary to use it, and do not use the whip except when necessary to force him to pick up the roll.

When he can be made to lie down until after you have thrown the roll and he is ordered to catch it, and will then retrieve and deliver it nicely, do not

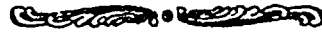
require him to retrieve so many times in succession as to make him tired of it, but only enough to satisfy yourself that he will not refuse.

There will be some difference in the time required to teach retrieving, dependent upon the difference in the dispositions of the dogs. The amount of work attendant upon yard breaking will in many cases be less than has been made to appear probably.

Some dogs may go through the whole course of their retrieving lessons without its being necessary to whip them, but as a general thing teaching a dog to retrieve will bring out all the stubbornness and power of resistance there is in him, and it will be surprising to find how exasperating some dogs can be in many little ways at different times. Be calm and deliberate in your actions at all times, and do not allow the dog to realize that his peculiar behavior is irritating to you.

Calmness and patience, though important at all times, are of the utmost importance in teaching retrieving, and it is much better to let the dog go unpunished than to risk a possibility of punishing him at the wrong time.

Even with the natural aptitude for work which is necessary to successful dog breaking, a man must learn and gain confidence by experience in order to know how to govern his actions in peculiar cases and do the right thing at the right moment.



A gentleman had a dog to which he was very much attached and which occasionally gave proof of extraordinary sagacity. Lately it took sick, and although everything was tried to relieve the animal it ultimately pined away and died. The day before his death he seemed to rouse himself, going out to a

corner of the garden and commenced digging furiously. The gentleman's friends augured good from this and predicted a safe recovery, but the owner himself from that moment lost all hope, and his fears proved to be only too well grounded. The dog was digging his own grave!



## Another Use for the Hand Camera.

BY HUBERT M'BEAN JOHNSTON.

Unquestionably, hand-camera photography is one of the most fascinating branches of photographic work. While the scope of picture making in this line must be acknowledged to be practically unlimited, it is a fact well worthy of note that those who turn out the best work with one of the little leather covered black boxes, are those who have first served an apprenticeship to the art, with a safely mounted field-instrument. The idea seems to be a common one outside the fraternity, that carrying a set of legs about with one, is a serious objection, when, for the same money or even less, it is possible to secure an instrument that will do just as good work and be very much easier to carry. My own personal experience,—and it has extended over a number of years,—would lead me to advise anyone buying the first camera, to by all means get a field instrument, or all events, one that will admit of the use of a tripod.

But it is not my intention here to go into all the different particulars regarding the precise type of instrument you want to use. Instead, it is assumed that you already have some sort of a hand instrument and that your aim is what the aim of every right-minded photographer should be,—pictorial effect. Now, I want to call your attention to a most excellent use for your little black box.

Suppose you are a pencil or water-color artist and you come suddenly in your rambles through the wood upon a scene which you think ought to make something good. Do you at once sit down and draw or paint it just as you happened upon it. No, you certainly do not. You move about it from viewpoint to viewpoint, rejecting this one and questioning that, and then, instead of trying to produce a masterpiece right on the spot, out comes a portfolio and you merely take away with you a number of hurried outline drawings that may be studied at leisure. Then, next time you come, you are prepared to say which you

like the best and draw for that alone. Now, so it is or ought to be with a hand camera. When we are out with a fixed intention of putting on a dry-plate some long thought-out idea that will rank on a level with the works of fancy and imagination of great painters, the value of this pictorial memoranda made with the hand camera, is at once intensified all out of proportion to the respect which has hitherto been paid to it and the task of discriminating is immediately simplified by half. After one has been a few times over the country and has made hand-camera pictures of it from this standpoint and that, it is no longer necessary to sit down of a morning and wonder what direction the afternoon's walk will take. All that one has to do is to pull out a note book of blue prints and at once can be gauged the possibilities of any particular spot at the same time with correct ideas as to the right lighting.

By the aid of our experience with the hand-camera and the repeated photographing of different spots from half a dozen different standpoints,—a thing we would never dream of doing if we were using 8 x 10 plates,—we quickly have our powers of selection made more acute, and we are able to decide far better and with less doubt which position it is best to occupy in attempting any new scene. Or if we are working in the same spot, occasional reference to the little picture that has been made before will at once remove any lingering doubts that we may have had as to just how much and how little ought to be included in our picture. We are able to pick a standpoint where Nature will spread before us all her unfettered beauties—the small and scrubby bushes or the great giants of the wood that rank as kings among their brethren; or perhaps the glassy surface of the pool reflecting the dark shadows of the overhanging branches until a rippling breeze gives old Sol an opportunity to break his rays on it in a million dazzling points of sheen. Or we

may get the breadth that only goes with great deep masses of shade when contrasted with long stretches of light flooded sward. Or we can decide whether we want those rocks, stumps, old logs, storm-beaten earth and reeds that have bowed their heads before steady driving gales,—whether we need these things or whether we do not need them. These are all some of the things for which we can use the hand-camera memoranda and there are a host more.

No matter how chock full of beauties a subject may be, it is best that the operator make himself perfectly familiar with all its possibilities, and to do this, what can be found that is better than a hand-camera? In prospecting for suitable material, we frequently come upon views which, if treated at a different hour or season, would yield admirable results, but which if taken on the spur of the moment could not possibly make more than a badly lighted photograph quite without that breadth of aspect that old Sol in his proper position, would have enabled us to secure. If we simply passed them on, (and this is what we so often do), in half an hour we would have forgotten that they had ever existed. On the other hand, photographed with the hand-camera, they may be

studied at leisure and notes made under them in pencil so that we may come back for a second and probably more successful attack, and one that, by its results, will amply repay us for any trouble we may have put ourselves to in the search for the very best. Surely there can be no possible excuse for the instrument lying idle at any time or season of the year. Spring, summer, autumn, and winter all afford equal facilities for different types of pictorial photography. "To the attentive eye," says Emerson, "every moment of the year has its own beauties, and in the field it beholds every hour, a picture that was never seen before and never shall be seen again."

The earnest photographic student of Nature, whether at her best or at her worst, and no matter with which of her constantly varying moods he is enamoured, will find that in securing it in all its proper effect on a photographic dry-plate, the use of the hand-camera in the same light as the painter handles his sketch book, will not only result in a very perceptible improvement in his work, but also in a saving of plates, a fact which in view of the prices of the larger sizes and those most commonly used for pictorial work, is well worthy of careful consideration.



The following letter has been received from Tom Martin, one of the best guides in British Columbia. It should interest those who care for big game hunting.

SICAMOUS, B.C., Dec. 25, 1902.

As I promised I am writing to you again, and first and foremost as to the Seymour Arm. One of the trappers that was out there this fall got three bears and two caribou. He got the caribou up on the divide near where I said the trail should go. He got the bear near the head of the arm. He says there seems to be quite a number of caribou around that section this fall. Some Indians shot a few near the head of the

Anesty Arm, but I cannot say how many. However, they brought in and sold to Mr. Padmore one good head. Another party of Indians was up the Eagle River, and got some caribou, two grizzly bears, two black bears and two goats. They found a great amount of game. The country they visited was to the north of Griffin Lake, where the proposed trail should come out.

Since you were here I was out with the Denver on two occasions; each time visiting the Anesty Arm. We towed the house boat and made the trip in five hours and thirty minutes. As usual the fishing was good this fall; grouse were very abundant. As many as twenty being shot in one day by one gun.

## The Rocky Mountains Park.\*

Entering by the main line of the Canadian Pacific Railway the Gap of the Bow River, which marks the point where that river debouches from the Rocky Mountains to the prairie lands of Southern Alberta, and following up the broad valley of that river hemmed in on each side by lofty ranges amongst which "The Three Sisters" are a conspicuous feature, keeping their serene and age-long guard over the flowing river, and the restless stream of mortals that pass below, the station of Banff is at last reached at a height of 4531 feet, and the traveller is within what has been set apart by Act of the Dominion Parliament as the Rocky Mountains Park of Canada.

In this vicinity hot springs of great curative value were long known to exist, and when the Canadian Pacific Railway was approaching completion, it was suggested that a reservation of these springs should be made, so that they might be kept always available for the use of the public, and accordingly an Order-in-Council was passed on the 25th November, 1885, reserving certain lands surrounding these springs, and instructions were given for a survey. The survey was made by Mr. Geo. A. Stewart, afterwards the first Superintendent, and he recommended that a much more extended tract be included and that a Forest Park be created. Accordingly on the completion of the survey an Act of Parliament was passed in the year 1887 (50-51 Vic., chap. 32), setting apart, as a National Park, a rectangular tract twenty-six miles in length and ten in width, and providing that this tract should be reserved and set apart as a public park and pleasure ground for the benefit, advantage and enjoyment of the people of Canada.

At this point the Bow River, which has been following a somewhat north-easterly course and is joined by the Cascade River flowing in from an opposite direction, turns more to the east and flows onward to the plains. A short distance above the junction of the Cascade

and the Bow, Devil's Creek flows into the former from Devil's Lake, the most considerable body of water in the park, being about twelve miles long and two wide, and occupying what may have been at one time the valley of the Ghost River which now flows past the northern outlet but which would also then have affected a junction with the Bow. The parallelogram laid out for the Park has its greatest length in the direction of these opposing valleys, and it includes also the Vermilion Lakes, west of Banff, and the Spray River coming in from the east near the same point. All this scenery of lake and river and waterfall is surrounded by mountains rising to a height of from 8,000 to 10,000 feet, and forms a picture of beauty and grandeur such as can hardly be surpassed.

It has been felt for some years that the National Park should include a larger area, and in his report for the year 1894, the Superintendent recommended that the bounds be largely extended. This recommendation has been repeated by the present Superintendent, Mr. H. Douglas, and so strongly supported that at the last session of the Dominion Parliament, an Act was passed extending the boundaries of the Park so as to include a large triangle, the Western boundary or hypotenuse of the triangle being the summit of the Rocky Mountains, the boundary between British Columbia and the North West Territories, the eastern boundary being the eastern line of Range eight of the Dominion Lands Survey, commencing where it reaches the summit of the Rockies perhaps fifty miles south from Kananaskis and running north to the north boundary of Township 34. near Clearwater River, making a length in the total of nearly one hundred miles. The northern boundary runs westward along the north line of Township 34 to the summit of the Rockies. This would make the total area to be included in the Park about 2,800,000 acres. This district includes the valley of the Bow River from below Kananaskis to its

\* Contributed by the Officers of the Canadian Forestry Association.

source and also its tributaries, the Kananaskis, the Spray, the Cascade, part of the Ghost River and other smaller streams. The northern part includes the head waters of the Red Deer, Clearwater and other streams.

In the broad lower valleys the trees are scattered, giving the country a park like appearance. As the elevation increases and the valleys narrow the tree growth becomes more dense, the best forests now being found between the heights of 5,000 and 7,000 feet. Here and there in the lower valleys may be found some specimens of the Douglas fir, (*Pseudotsuga Douglasii*,) and along the streams the White Spruce (*Picea alba*,) and Balsam Poplar, (*Populus balsamifera*,) while the Aspen Poplar, (*Populus tremuloides*,) sows itself on every wind and appears on all the higher and dryer locations. The most common tree at the elevation of Banff is the Lodgepole Pine, (*Pinus Murrayana*,) which comes in on the dry ground which has been run over by the fire. Along the Bow River are found occasional specimens of *Pinus flexilis*, and proceeding still higher are found *Pinus albicaulis*, Englemann's Spruce, (*Picea Engelmannii*) and Lyall's Larch, (*Larix Lyalli*) the last forming a yellow crown about the summits of the mountains in the autumn when the leaves are preparing to fall. Above these stand up the bare snow-clad peaks.

In regard to the forest fires in the Rocky Mountains, the following from a report on this district by Dr. Dawson, the late Director of Geological Survey, is important:—

“Notwithstanding the evidence previously mentioned of the occasional occurrence of forest fires in ancient times in these mountains, it is only within the historic period for the region (probably not before the beginning of the century) that such fires became common, and during the past few years their frequency has increased in a greatly accelerating ratio. The effect of such fires is most disastrous. Large quantities of valuable timber are destroyed and whole regions become so blocked with tangled burnt woods and windfall as to be practically inaccessible, while the fine mountain

scenery is seriously marred. These destructive fires in most cases arise through sheer carelessness or wantonness, and the most stringent measures should be taken to prevent them before it is too late. It is often stated that the Indians are responsible for much of this destruction, and it is doubtless true that since they find the whole region in process of being ravaged by fires which they cannot prevent, they have become more careless than before. They would not, however, willingly destroy their own hunting grounds, and the best evidence of their care is found in the fact that while along the North Kootanie Pass (which so far has been scarcely used, except by the Indians) the woods are generally unburnt, these in the vicinity of the parallel Crow Nest Pass, which has now for a few years been the route taken by the whites, are entirely destroyed, and represented only by bleached or blackened trunks.”

From the creation of the Park care has been taken for the prevention of fires, and with success, as no serious destruction has occurred from this cause. The area to be protected was small, however, compared with that contained within the present boundaries and it will require an extensive and thorough organization of the fire preventive system if the beauty of the scenery is to be preserved and useless waste of valuable wood material prevented. More important still, however, is the control of the water supply of the valley of the Bow, Red Deer and other rivers. The Bow River is the source of supply of the most important irrigation projects in the North-West, including several in the vicinity of Calgary, and the large scheme which the Canadian Pacific Railway are undertaking further to the East is dependent upon it and the Red Deer River. Irrigation requires a steady water supply, not a flood in the spring and a water famine afterwards, and one of the easiest and cheapest methods of providing for it is to preserve the forest cover of the sources. The extension of the Park has not been made too soon, and it is to be hoped that measures will be taken as speedily as possible for the adequate protection of the whole watershed which it dominates.

While the forests hold the chief place in the eye of the forester, there are other features of the Park worthy of mention. The principal fish are the lake trout (*Salmo namaycush*), and in the rivers the bull trout (*Salvelinas malma*), and rainbow trout (*Salmo mykiss*). There is also what is called the grayling but is really a whitefish (*Corego Williamsoni*). These are good game fish and may be caught by any person who pays sufficient attention to their habits to understand the proper way of doing so. The ordinary tourist has, however, not always made a success with the rod, and it is proposed to take steps to have the water fully stocked so that none need go away unsatisfied even if his skill as an angler be of the poorest.

In the report prepared for the Department of the Interior at the date of the establishment of the Park the wild animals were given as the wapiti or elk, the black tail or mule deer, the white tail or jumping deer, the red or Virginia deer, the pronghorn antelope, mountain sheep and goats, bear, beaver, otter, mink, etc. The list was perhaps more extended than the facts would warrant, especially in respect to the larger animals, as those which would more likely be found in the foothills were included in the list. Regulations have been made for the protection of the wild animals, and in addition an effort is being made to gather into the Park the representatives of all the Canadian wild species so that some specimens

may always be preserved whatever the exigencies of the future. The most notable animal thus perpetuated is the old king of the prairie, the buffalo, a number having been presented to the Park through the kindness of Mr. G. T. Blackstock and Lord Strathcona, which are succeeding well and increasing in numbers. The elk and musk ox have also been added to the collection. The birds are mainly birds of passage, such as ducks and geese, but they are numerous at the times of migration. To attract them to the Park some wild rice was obtained from Ontario and planted but with poor success, and on account of the coldness of the water it is hardly likely that it will be possible to bring it to maturity.

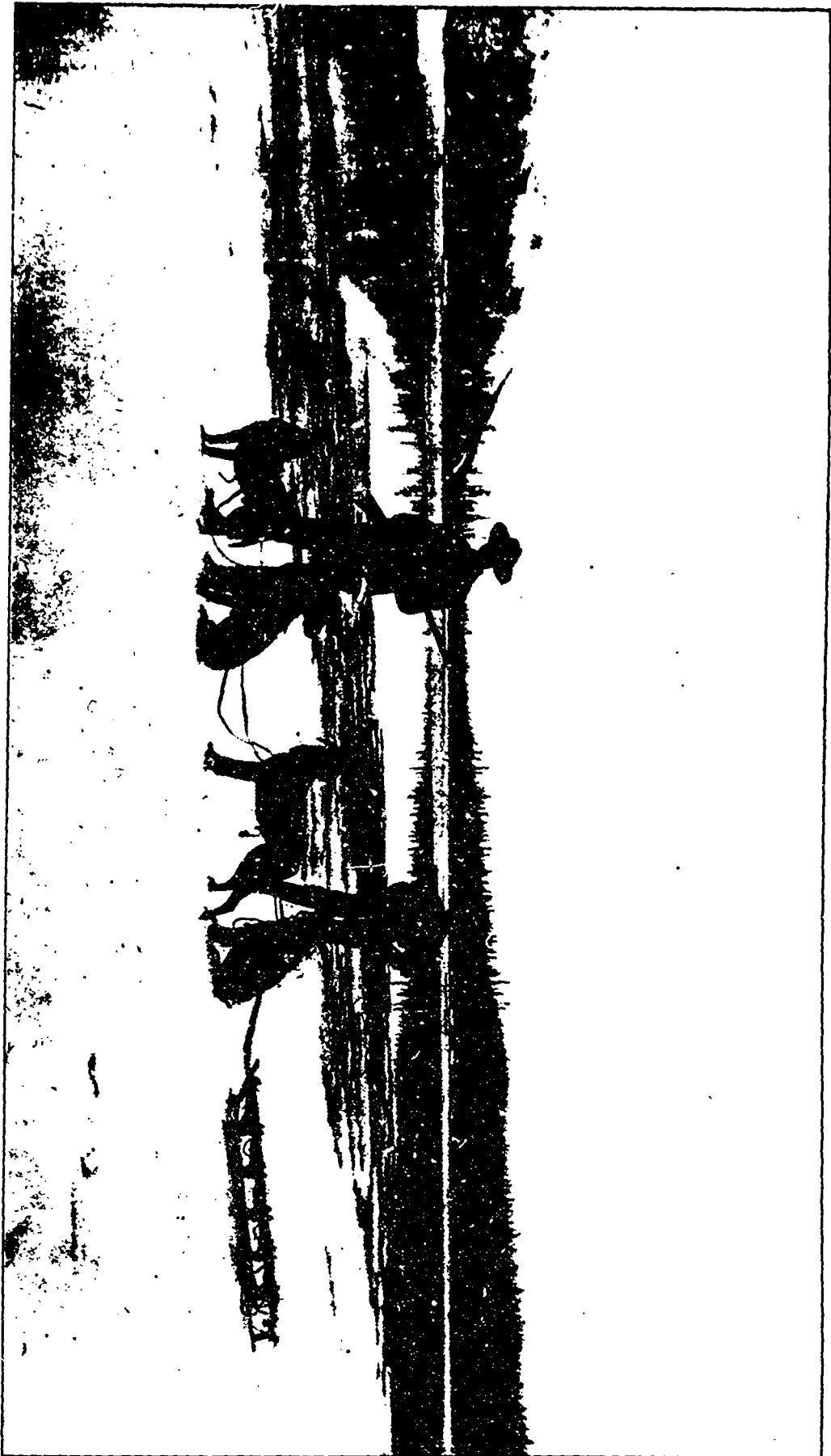
A museum has also been established in which will be brought together specimens of animals, birds, insects and other subjects of interest characteristic of the Rocky Mountain district. Considerable progress has been made with this collection and it will probably be placed in a new and specially constructed building in the near future.

Canadians have reason to be proud of their National Park. Nature has nowhere been more lavish of her beauty or reared it on a grander scale. Let there be preserved unmarred to the Dominion of the present and the future this gem in her crown, that its beauty may rejoice the heart and its cooling waters descend in steady flow to rejoice the thirsty land.



Some time last spring Mr. George H. Carley, secretary of the Gore Kennel Club, Hamilton, purchased a pair of French bulldogs from a firm in Paris, France. The firm, it appears, gave references which were satisfactory to Mr. Carley, who immediately remitted the price—\$250. Mr. Carley has greatly increased the revenue of the post office

department in his efforts to find out the why and wherefore of the non-arrival of his purchase but without effect. The last letter took the shape of an ultimatum, giving the firm one month to deliver the dogs or refund the money. In the event of no satisfactory settlement the Government will be asked to make some inquiry into the matter.



DOG TEAM ON PIKE LAKE, B. C.  
One of the Provincial Police and his "tilleunt," or chum, off for a hunt.



**CHIEF SHAKES' CANOE.**

A type of the cedar dug-out in use by the Indians of the Stikine River, B.C.

## Ontario Forest Reserves.

Regulations have been established by the Government of the Province of Ontario for the Forest Reserves under its control. The immediate occasion for the passing of these regulations was the opening up of the Timagami Reserve by the Timiskaming Railway and the necessity for making provision for the regulation of prospecting and mining development in the Reserve. These regulations apply to reserves set apart under the Forest Reserves Act of 1898 and amendments thereto.

The Commissioner of Crown Lands is authorized to appoint a Superintendent to have charge of any reserve, and as many rangers or forest guides as he may deem necessary, and may employ them for such periods of the year as may appear to him proper. In order to control travel in the reserves these officers are given authority to require from any person entering or passing over them information as to his identity, duration of his stay, part of reserve he intends to visit or any matters of a similar nature.

Prospecting for minerals will not be allowed except to those holding permits for this purpose, for which a fee of \$10.00 is charged, and which will be good for twelve months from the date of issue. Permittees may be required to furnish security for the due observance of the regulations. No lands shall be disposed of for mining purposes in any reserve which in the opinion of the Commissioner of Crown Lands are valuable for the timber thereon or are in the vicinity of any considerable quantity of timber, and all timber of every kind upon lands in a forest reserve located, sold or leased, shall be reserved to the Crown. The Commissioner may, however, allow the use of such timber as is required for purposes essential to the carrying on of mining operations on terms of payment to be fixed by him. The owner or lessee may be required to clear fire lanes for the protection of timber on his lands or lands adjoining. Mining operations can be begun or resumed only by the written consent of the Com-

missioner, on an application giving full particulars as to the land and proposed operations generally, and no ores containing sulphur or other deleterious substances shall be roasted in the open air in any reserve, or treated in such a way as to expose the trees and other vegetation therein to injury.

Standing and growing timber must not be injured or cut without authority.

Fires may be started only for the purpose of cooking, obtaining warmth, or clearing lands with the consent of the Commissioner for some industrial purpose permitted to be carried on. Every person who makes or starts a fire in the open air for cooking or camping purposes shall (a) select a bare rock whereon to kindle such a fire wherever possible, and if there be no bare rock in the neighborhood, then a site on which there is the smallest quantity of vegetable matter, dead wood, branches, brushwood, dry leaves or resinous trees; (b) clear the place in which he is about to light the fire by removing all vegetable matter, dead trees, branches, brushwood and dry leaves from the soil within a radius of ten feet from the fire; (c) exercise and observe every possible precaution to prevent such fire from spreading, and carefully extinguish the same before quitting the place. Any burning substance from a match, cigar, pipe or firearms must be extinguished. Everyone in charge of any party in the reserves must have a copy of the regulations and read it to his party at least once a week.

Locomotive engines must be provided with the most efficient means to prevent the escape of fire, including a screen of netting in the smokestack, and it shall be the duty of every engineer to see that such appliances are properly used.

The Commissioner may construct roads, ways and buildings, but no person, company or municipality, except for the necessary and convenient operating of mines on patented or leased lands, or for some other industrial purpose permitted by the Commissioner to be carried on,



shall do so without special permission, this prohibition including the running of steamboats.

Every person acting as guide in the reserves must obtain a license from the Superintendent, for which an annual fee of \$1.00 is to be charged. Any one acting as guide without a license is subject to a fine of \$50.00 for each offence, or in default to imprisonment for a period not exceeding six months. Any violation of the regulations by guides renders them liable to forfeiture of the license.

These regulations have evidently been framed with much care, and with an adequate staff and a proper enforcement they should be effective in protecting the timber, while at the same time permitting travel through the reserves for pleasure or business and the development of the mineral resources. It is well that the Crown should retain the timber entirely in its own hands and that it should be used only under proper restrictions and supervision, as in no other way could it be assured that adequate protection would be given.

There is no provision in the regulations, however, for the cutting of timber, although in the Timagami Reserve at least parts of the forest are fully matured and are quite ready for that process, and, in fact, are none the better for waiting. There are two methods in which the timber could be dealt with, *i.e.*, either to be cut by Government officers and sold in the log, or else sold on the

stump and cut under supervision of such officers. Either method would require a staff of trained officers, and the question is as to which would be the most convenient and practicable. Possibly the special circumstances of a particular case might render either one or the other method preferable, but, on the whole, it might be advisable in the beginning to be content with selling to the lumber operators the standing timber at a rate per thousand. Natural reseedling will have to be depended on for the reproduction of the trees, and, therefore, it will be necessary to see that the cutting out of the valuable trees does not merely result in giving opportunity for the more vigorous growth of the poorer ones and the suppression of the young growth which should furnish the future crop. Means must be devised for the economical removal of the less valuable, though mature, trees, so that the more profitable ones may be given every opportunity of occupying the ground. The disposal of the débris of lumbering operations is another matter that requires attention if fires are to be prevented and the land put in the best conditions for reproduction. Fire seems to be the only agent by which this can be accomplished under present conditions, but it will require the most careful handling.

The management of timber reserves is one of the most important questions of forest administration, and we will be glad to have the opinion of any of our readers on the subject.



In a recent number of "Queen's Quarterly" is an article by W. H. Muldrew, on "Some Recent Contributions to the Literature of Forestry," calling attention to the literature which is growing up in Canada as a result of the interest which has been taken in Forestry. Very appreciative reference is made to the publications of the Canadian Forestry Association, and in recent literature issued in the United States special mention is made of "Practical

Forestry," by Professor John Gifford, which is certainly a useful and interesting contribution to the history of the subject.

In the article in our January number on "The Lumber Supply of the West" an error occurred in giving the quantity of Douglas fir destroyed by fire in Washington State as 5,020,800 feet. The quantity is 5,026,800,000 feet, and the value \$5,026,800.

## Guardians of Game.

The third annual meeting of the N. A. F. G. P. A. was held in Ottawa last month. The members met in the City Hall Council Chamber on the afternoon of January 21st.

The North American Fish and Game Protective Association was organized three years ago in Montreal, the Hon. S. N. Parent being the moving spirit. He was chosen as its first president.

As the name implies, the object of the association is for the preservation of fish and game and the harmonizing of laws.

In the protection of fish and game the association deals with the preservation of the forest and makes endeavors to have it preserved from destruction for commercial purposes, or by forest fires or from other causes. Regulating the seasons and taking intelligent efforts to prevent the introduction of fish that would destroy those already there, and of value for their sporting or edible qualities, such as introducing black bass into natural trout and ouananiche waters.

The harmonizing of the laws of the different provinces of Canada and the adjacent states of the American union is also an important consideration.

At the business sessions of the association reports are received from the representatives of the different states and provinces as to what legislation has been carried affecting the association.

The delegates assembled in the City Council Chamber at 3 o'clock. The Hon. R. F. Latchford, the president, found himself supported by some fifty delegates. After referring to the importance of Ottawa as a fish and game centre, the president welcomed the delegates from both sides of the line, saying that in sportsmanship there was no boundary. He then called on Mayor Cook to extend the civic welcome. The Mayor was glad to greet the sportsmen, Canadian and American. He thought the more the two countries came together in such gatherings the more would be promoted a feeling of kinship and Anglo-Saxon brotherhood. He was glad

to extend the freedom of the city to the delegates. In thanking the Mayor for his welcome, Mr. Latchford said he thought the petty influences which had kept the two peoples apart were growing less and less and the mutual regard increasing.

Dr. Finnie, of Montreal, read an interesting paper on the wolf, which are numerous wherever the red deer is found, and are a cause of loss to the settler in sheep. The Ontario Government has provided a generous bounty, and as a result Ontario is free from the animals, except in the northern parts. In Quebec there is no bounty, and there is great need for one to protect game and stock. Dr. Finnie thought the association should pass a resolution to strengthen the hands of Premier Parent, who is in favor of a bounty, but is kept from acting by the fears of his colleagues that the payment of a bounty would take too much money from the treasury.

Prof. John Macoun said that the deer do not extend indefinitely to the north, but only in a belt between the settlers to the south and the wolves to the north, and when word comes that deer are plentiful it means that the wolves are pressing them more fiercely than usual. The professor said that unless the Quebec authorities take steps to exterminate the wolf, the wolf will exterminate the deer and the red deer will vanish from the face of the earth as has the buffalo. The same fate threatens the moose, which are being pressed down after the deer. The old moose is able to take care of himself, but the young are not. The bounty on wolves should be so large that wardens and others will hunt the animal for profit.

At the close of the discussion Dr. Finnie brought in a resolution reciting the state of affairs, and reading:

"That this association strongly recommends that the Quebec Government take the matter into its serious consideration, and that a bounty be offered for every pelt and that General Henry, Mr. E. T. D. Chambers, Mr. C. E. E. Ussher

and Dr. Finnie be a committee to urge the Government to action."

Mr. D. G. Smith, fishery commissioner of New Brunswick, said there was no friction in the administration of the fish and game laws between the officers of the state of Maine and Quebec, and those of New Brunswick. One improvement might be made, viz.: if it were possible to make the processes of the magistrate's courts co-operative on both sides of the border lines. It might, at all events be done as between Quebec, Nova Scotia and New Brunswick. The game fish of those provinces are holding their own; big game are decidedly increasing. Visiting sportsmen seldom secure the coveted moose and caribou heads. New Brunswick requires no license to be taken out for the hunting of any game save moose and caribou; the license fee for these being \$30 for a non-resident, and \$2 for a resident. The public domain being an asset of the province, its game should no more be taken free than its lumber. Guides should be content with their privilege of working at their calling without charge on the public property. Some of the best salmon and trout centres formerly leased by the province were reserved at the last general sale, to be opened to the public, yet the amount realized was equal to that of the preceding term. All the Crown Land lakes and streams of New Brunswick in ten of its fifteen counties are open free to the public—resident and non-resident alike. Fishing privileges, like the mines, are reserved to the public in all Crown Land grants issued. The amount received for big game licenses last season was \$2,000 more than in 1901.

Mr. S. T. Bastedo, deputy commissioner of fisheries for Ontario, spoke shortly on the help given by neighboring states and provinces in enforcing the game laws. Ontario officers had received much assistance from commissioners of various border states in the enforcement of the law forbidding the sale of bass. Then Ontario and Quebec had worked together in this respect, and officers along the boundary were instructed to help one another. Mr. Bastedo said that there are 120 game overseers in the province with a number of game wardens who received salaries of \$600 a year,

as against the \$500 paid to such officers in New York state.

Mr. G. H. Richards, president of the Longue Pointe Club, Boston reported briefly on behalf of Massachusetts. He said that their law prohibiting the sale of woodcock and partridge has been very beneficial in its action, and reviewed shortly the satisfactory condition of affairs in his state.

A resolution proposed by Col. Irwin that the attention of the Quebec Government be called to a deficiency in the act which requires proof of catching fish in addition to the possession of illegal implements, brought out an interesting discussion on the divided authority of the Dominion and provinces. The motion was withdrawn on the assurance of the president that representatives from Ontario, Quebec and New Brunswick would wait on the Government this week to discuss this question.

A resolution directing that all recommendations for legislation be referred to the executive committee for consideration before being brought before the convention was carried after a long discussion.

Secretary Chambers read a communication from the secretary of the Canadian Forestry Association, asking that delegates be appointed to attend the meeting of their association to be held in this city in March. It was decided to send two such representatives and their selection was left to the president.

The committee on location reported in favor of Portland, Me., as the place for next meeting, and this was carried unanimously.

The meeting came to a close on the evening of Jan. 22 at 6 o'clock, so far as the business sessions were concerned, and the meeting was characterized by all as the most successful in the history of the association. In the afternoon the following officers were elected on recommendation of the nominating committee:

President, L. J. Carleton, Augusta, Maine.

Vice-presidents, H. O. Stanley, Dixfield, Me.; John Fottler, jr., Boston, Mass.; R. E. Plumb, Detroit, Mich.; A. T. Dunn, St. John, N.B.; Nat. Wentworth, Hudson Centre, N.H.; C. H.

Wilson, Glen's Falls, N.Y.; C. A. McCallum, London, Ont.; Dr. J. T. Finnie, Montreal, Que.; F. G. Butterfield, Derby Line, Vt.; C. S. Harrington, Halifax, N.S.; S. A. McGrath, Franklin, Pa.

Secretary-treasurer, E. T. D. Chambers, Quebec

Executive committee—Chas. E. Oak, Augusta, Me.; F. S. Hodges, Boston; Henry Russell, Detroit, Mich.; D. G. Smith, Chatham, N.B.; Nat. Wentworth, Hudson Centre, N.H.; J. H. Seymour, New York; S. T. Bastedo, Toronto; C. E. E. Ussher, Montreal; F. L. Fish, Vergennes, Vt.; H. M. Wallace, Halifax, N.S.

Membership committee—L. Z. Joncas, Quebec; Dr. W. H. Drummond, Montreal; W. W. Henry, Quebec.

Auditing committee—W. J. Cleghorn and L. O. Armstrong, Montreal.

President Latchford appointed Dr. Finnie and Mr. Montague Smith as representatives of the association to wait upon the Canadian Forestry Association, which meets in Ottawa on March 5th next.

Valuable papers were contributed at the closing session by Mr. Wm. McKirdy, of Nepigon, on "The Nepigon Trout"; by Mr. S. T. Bastedo, deputy commissioner of fisheries for Ontario, on "The Stocking of Inland Waters"; by Mr. Thomas Southworth, chief of the forestry department, on the "Forest Reserves System of Ontario," and by Mr. H. G. Elliott, assistant general passenger agent G.T.R., on "Hunting and Fishing in the Highlands of Ontario." These were followed by a paper by Mr. C. S. Smith, of the C.A.R., protesting against night fishing for frogs.

The following resolutions recommending changes in the game laws were passed:

"Whereas it has been brought to the notice of this association that a failure of justice has frequently happened by reason of the absence of the provision of law hereinafter recommended;

"Resolved, that legislation ought to be passed by the Legislatures of all states and provinces represented in this association to make it an offence punishable by fine or imprisonment to have nets, spears or other appliances for taking fish in possession on or near any waters at times and places where it is unlawful to use the same. It is further resolved that Gen. Henry and Lieut.-Col. Irwin be a committee to assist the local member of the executive committee in urging such legislation upon the Province of Quebec and to present this resolution to its Government and the members of the Legislature.

"Resolved, that the association recommend the stopping of the sale of woodcock and partridge in the provinces of Canada and contiguous states."

A resolution appreciative of the services of the secretary, Mr. E. T. D. Chambers, was passed and the sum of \$100 voted him for his services. Resolutions of thanks were also passed thanking President Latchford, Mayor Cook and the City Council for the use of the council chamber, the railroads for their courtesies, and the press of the city. The final vote of thanks was to the entertainment committee, whose chairman, Mr. John Emo, and secretary, Mr. John Byrnes, have been indefatigable in making the convention a success.

According to secretary-treasurer E. T. D. Chambers, there is a respectable balance of cash on hand. The increase in members during the past year was twelve, there being over eighty members on January 1st.



## Our Medicine Bag.

An English sportsman who is very well known to a great many residents of the Dominion is Admiral Sir William Kennedy, K.C.B., at one time in command of H. M. S. *Druid*, on fishery duty on the Newfoundland and Labrador coasts. Admiral Kennedy has just published a very entertaining book "Sport in the Navy," dealing not only with the sport he enjoyed on the North American station, but also in every other part of the known world. It may almost be called a gazetteer of sport, for the author has had a crack at almost all things that walk, fly or swim in the four quarters of the globe. We do not think that a peripatetic sportsman could provide himself with a better guide book.

Of the sports to be enjoyed off the coasts of the Dominion, the Admiral says: "The North American Station has always been popular with Naval officers, especially the Northern part of it, on account of the sport, the climate and pleasant society. My first acquaintance with Halifax was in the *Hero*, when we spent four delightful months there, and it was then, in 1864, I was first initiated in the fascinating sport of fly fishing. Our parson was an enthusiastic fisherman and he took me in hand. The lakes in the neighborhood were well stocked with trout, and I remember my first day on the Spider Lake, when I caught seven, and thirteen the next; after that my education was complete, and I was not satisfied with less than four or five dozen." The author enjoyed capital fishing in Drysdale Lake, 12 miles from Halifax on the Musquadobit, the Clyde, and in various other Nova Scotian waters.

But it was in Newfoundland that the Admiral evidently enjoyed himself most, for he gives a decidedly rosy description of what he did in that charming island. He accounts for the heavy antlers of the Newfoundland caribou by the feed being superior to that of any other region where caribou or reindeer are found. He says: "The caribou of Newfoundland is really a woodland reindeer, identical with the reindeer of Scandinavia, but

far heavier in the body, and with more massive antlers. This I attribute to the superior feeding in Newfoundland—the moss on which they feed being found ankle deep on the islands; and also to the shelter afforded by the woods, whereas the reindeer lives on the fjelds of Norway and Sweden, without any shelter whatever from the stormy blast; the moss is also very sparsely distributed, at least, such is my experience."

The Admiral of course had his turn of service on the North Pacific Station, and seems to have profited by his opportunities while stationed at Esquimalt, and he says: "For all-round sport with rod, gun and rifle, combined, with a fine climate, beautiful scenery, and pleasant society, commend me to Vancouver Island. Here one can sleep in a blanket, and shoot or fish all day as in Scotland; and in the same clothes, and I know no more delightful occupation than wandering through the woods with gun or rifle, or trolling for salmon in the lovely harbour of Esquimalt."

*Sport in the Navy* is published by Archibald Constable & Co., Ltd., 2 Whitehall Gardens, London. The price is six shillings.

Stories of extraordinary sagacity shown by dogs do not surprise anyone now-a-days,—they are so rife that the unreflective reader looks upon them as a matter of course, and does not care to strain his brain-pan over the why and the wherefore of such common occurrences. There is no question that most of the recorded instances of marvellous feats performed by dogs represent more frequently the results of careful and patient training than the intuition of the animal itself, although there are numerous well-authenticated instances where natural intelligence, stimulated by circumstances calculated to excite the dormant faculty of reason (or instinct, as some will have it) has prompted actions in which analysis, fearlessness and fidelity must have been combined in

order to their successful accomplishment. A bright example of what may be had by proper training, added to natural sagacity, may be daily seen on the London & South Eastern Railway, where a little fox terrier—one of the most esteemed officials of the road—does his daily round of duty. It is employed as a messenger between the London terminus and a signal box some distance up the line, to which it carries despatches to the signalman, returning with his answers thereto. The trusty messenger comes on duty regularly every day at two o'clock, leaves off at the allotted time, and while engaged in its work will allow no one to intercept it. Wet or dry the faithful animal never fails to appear on the stroke of the clock, never goes on a drunk or strikes for higher pay, and it is known and idolized by every employee in and around the station.

Messrs. Lally and Stevenson, of Toronto, returned recently from a couple of weeks moose hunting in the Lac du Bonnet district, Manitoba. Mr. Lally says that this is the best hunting ground he has ever visited. This year big game is especially plentiful, and the two sportsmen succeeded in bagging a moose apiece.

They saw one elk, but were not fortunate enough to get a shot at it. Their bag was completed by a bear and a number of wild fowl.

Dr. Bernard Fernow, the well known director of the New York State College of Forestry, in Cornell University, has just published through Messrs. Thos. W. Crowell & Co., of 426 and 428 West Broadway, New York, a most valuable text book on "The Economics of Forestry." It is undeniable that up to the present we have been sadly lacking in works dealing with the economical side of forestry, although the German literature is very rich in such books. Dr. Fernow seems to have covered the subject very thoroughly. In the first place he discusses the relation of the State to the natural resources of that State; then he attacks the forest as a resource; after which he discusses the forest as a condition; then forestry is

defined. Further on he deals with the business aspects of forest production, and goes into the natural history of the forest and silviculture. He has also something to say on forest policy, and touches upon the forest policies of foreign nations, ending with a careful summary of the conditions obtaining in the United States, and with the growth of the forestry movement in that country.

The price of this indispensable work is \$1.50, or by mail, \$1.65.

The editor of the *North Star*, published at Parry Sound, delivers his ideas as to the destruction of salmon trout in the following paragraphs:

"Last week we referred to the close season for salmon trout, and pointed out, as we have almost every season for the past twenty years, that the framers of the statutes as to the close season for these fish, had made a mistake, and that no fishing whatever should be allowed for either salmon trout or whitefish between October 15th and November 15th, or, better still, from the first-named date—October 15th—to the end of November. During a residence on Georgian Bay of twenty-two years we have known of only three years in which the fish delayed their run on the spawning beds until the close season, and in all other seasons the heaviest run was in the last of October and the first half of November.

"It would not be so bad for the preservation of the fish if netting was absolutely prohibited on the shoals or within the waters of the islands. There is such a regulation as to net fishing among the islands, but the line ought to be extended to the outside shoals. All the fish that legitimate anglers take on the spawning beds would not make any difference in the visible supply of fish, but the netting that is going on all through the spawning season, or at least during the spawning that takes place in October, is playing havoc with the fishing of Georgian Bay.

"At the present moment nearly every shoal along the coast line of the bay is surrounded by a circle of nets, so much so that it is almost impossible for anglers to troll for salmon trout. Certainly it is an annoyance and a shame that these splendid food fish should be slaughtered wholesale at the time when they are seeking to perpetuate their species by laying eggs on their usual spawning beds.

"We trust that this state of affairs will not be allowed to continue much longer, but that steps will be taken to change the close season for salmon trout, and that netting will be absolutely prohibited at all seasons of the year among all the islands of Georgian Bay."

There can be no doubt that the taking of any fresh water fish upon their spawning beds is a great mistake, moreover, the fish are not then in condition.

There have been books innumerable about dogs, but it remained for Dr. Egerton R. Young to find a way of saying something entirely new, and, therefore, interesting about man's best friend. Dr. Young has just published an important book about dogs in the Northland, and as he has been a missionary to the Indians of the Northwest for a number of years, he has naturally had a great deal to do with the hauling dog, for as a matter of fact, most, if not all these dogs, have to accept the inevitable destiny of their species in the Great Lone Land.

Any man who has done more or less winter travelling far from the railways, has carried away some lively recollections of the dogs that dragged him across the frozen plains and streams of the North. The "Huskie" is indeed a dog apart from other dogs. He has all the vices that it is possible for a dog to have, and yet they are offset, and more than offset, by his one kingly virtue—no other dog can haul with him, and in a country where the dog is kept as a beast of burden, this is, of course, a prime requisite. As Dr. Young says, "Steal they always would and did, anything eatable, and many things considered uneatable, they could not pass by. I have known them to leave their supper of white-fish to go and tear smoked moose-skin moccasins down from a clothes-line and greedily devour them. An old leather shirt was considered a dainty morsel, and at times there seemed to be more than even poetic justice in the fact that, if they could find the whip of a cruel driver, they speedily devoured the lash, even it were ten feet long, and only made of braided buckskin and loaded with shot throughout."

This well illustrated and well written little book is published by the Fleming Revell Co., 25 and 27 Richmond Street, West, Toronto. The price is \$1.00.

His Honour Lieutenant Governor Snowball, of New Brunswick, is Vice-President, for that province, of the Canadian Forestry Association. Mr. Snowball has been connected with the lumber industry in New Brunswick for many years, and is now one of the

largest operators, and the trade circular issued by his firm is an authority on the timber trade. Besides his successful management of private enterprises he has also held prominent positions in public life, having sat for some time in the House of Commons and for a longer term in the Senate, previous to his appointment as Lieutenant-Governor. We are pleased to be able to announce that His Honour has very kindly consented to submit a paper on lumber conditions in New Brunswick at the annual meeting of the Canadian Forestry Association to be held in Ottawa on the 5th and 6th March next.

A course of lectures on Forestry is to be given by Dr. B. E. Fernow, at Queen's University, Kingston, from the 26th to the 30th January, inclusive.

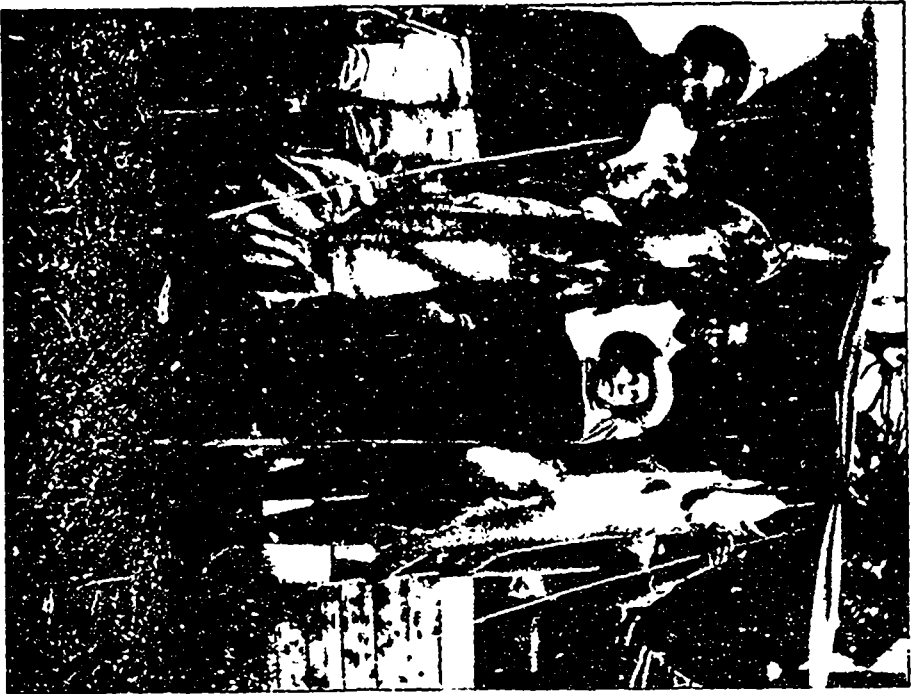
The fourth annual meeting of the Canadian Forestry Association will be held at Ottawa, on the 5th and 6th March, 1903. So far as the programme has been arranged papers will be submitted by His Honor Lieutenant-Governor Snowball; Mr. J. S. Dennis, of Regina; Mr. W. T. Macoun, of Ottawa, and Mr. W. C. J. Hall, of Quebec, on subjects of special importance relating to the provinces which they represent. It is hoped that all members of the Association will assist in making this meeting a success by ensuring a large attendance. If any member wishes to submit a paper or subject for discussion, notice should be sent to the Secretary at as early a date as possible. Matters of

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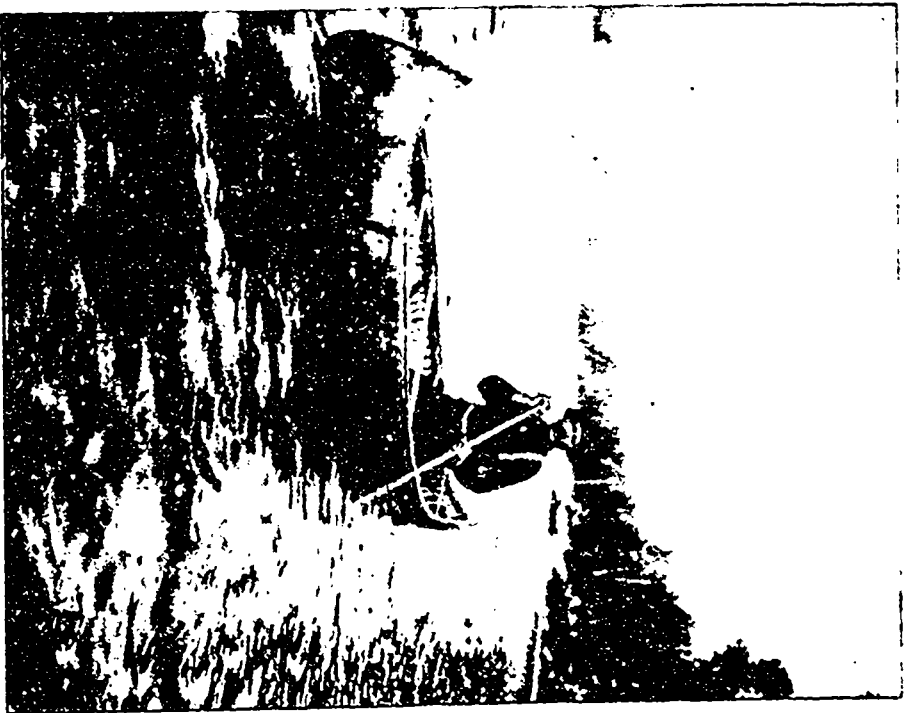
#### HOTEL SICAMOUS--SICAMOUS, B.C.

A charming hotel by the shore of the great Shuswap lake, at the junction of the Okanagan branch of the Canadian Pacific Railway with the main line. Within two miles of the hotel there is excellent deer shooting in October and November. Trout fishing is good in its season, and grouse and duck are extremely abundant.

Rates, \$3 a day and upward, with reductions to those staying a week or longer. Experienced guides always obtainable.

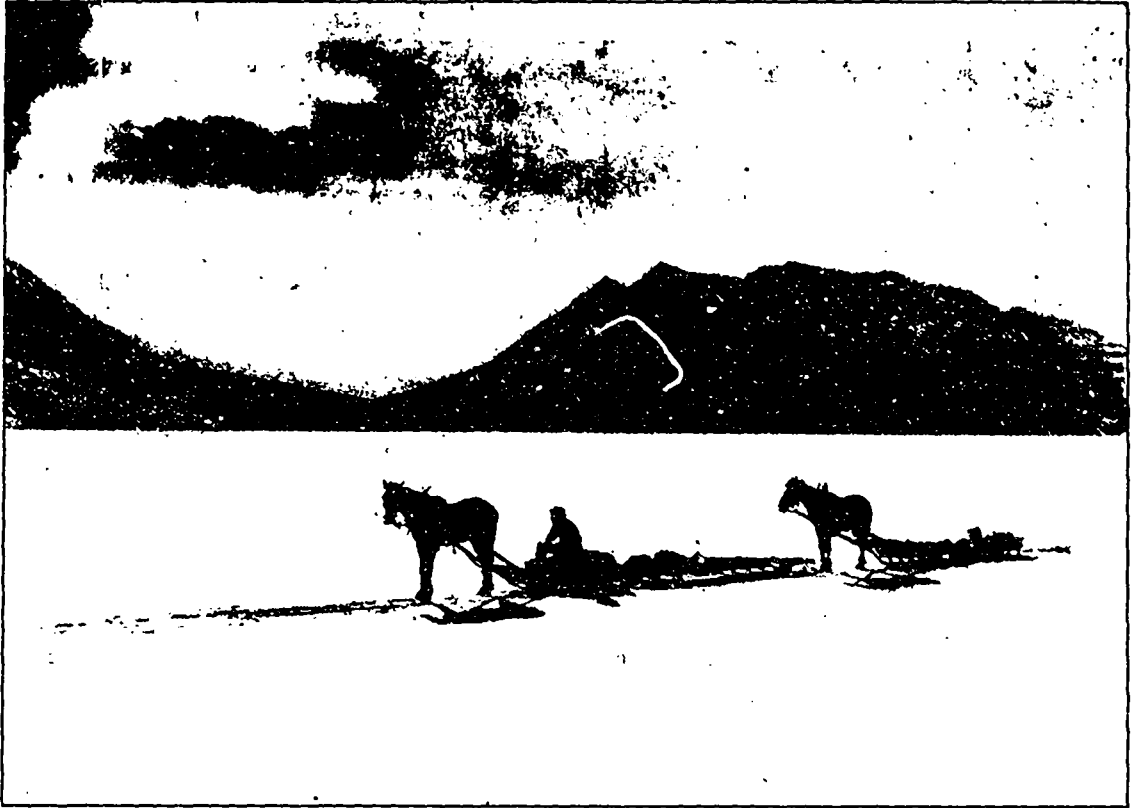


**HAPPY DAYS.**  
Some young fishermen who did well on the French River  
last summer.



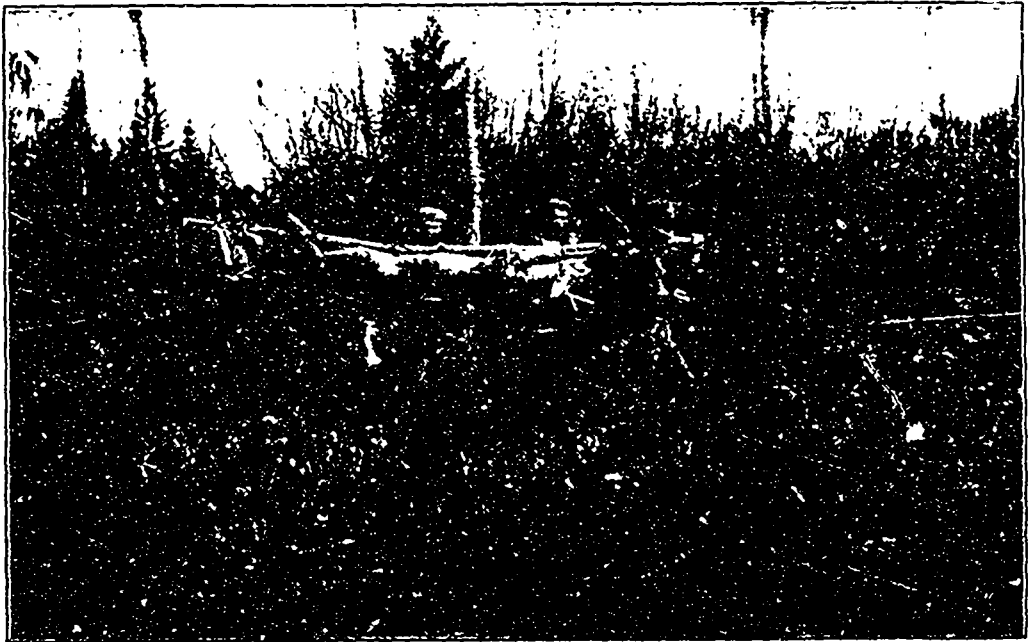
**THE BIRCHBARK.**  
All the poetry and mystery of the forest are in it,—and often  
all the pork and hardback, too.





LAKE ATLIN.

A winter scene in Northern British Columbia.



BRINGING IN THE BUCK.

This Gatineau deer made a heavy load for two stout men.

great importance will be dealt with at this meeting. It is proposed to place the work of the Association on a more extended basis and to undertake a considerable development of its scope of operations. Fuller notice will be sent to each member by mail at a later date.



Stevens rifles are well known to be exceedingly accurate weapons, and we were not surprised to learn that on the first day of the present year Mr. Harry M. Pope, with a Stevens rifle fitted with a "Stevens-Pope" barrel, succeeded in breaking both the 50 and 100-shot world's records on the Standard American target at 200 yards off hand, with a full score of 100 bull's eyes. The former 50-shot record of Dr. W. G. Hudson's was 462 points, and this was raised to 463. The 100-shot record of 900, also Dr. W. G. Hudson's, was raised to 908. The shooting was done at the first shoot of the year, under the auspices of the Rod and Gun Club of Springfield, Mass., and the weather conditions were perfect.



A Boston correspondent has favored ROD AND GUN with a note which he asks it to publish editorially or otherwise as deemed best. We have read it carefully and agree cheerfully to do as he desires, but at the end of the said note, we propose to append a few comments of our own:

A movement is on foot to improve the guide service in the Laurentian district north of Quebec. The guides there are Indians, half breeds and French Canadians, and they are not educated up to a standard of proficiency that compares with that of Maine guide. A few who do considerable hunting and trapping in the winter months are good hunters and fairly familiar with the handling of a canoe, but the majority are simply carriers without knowledge of the country or a canoe, and sadly lacking in what may be termed "guide duties."

There are some fifteen clubs in this district, the rights being leased to them by the Government. The Triton Club, leasing some seven hundred square miles, about one hundred miles north of Quebec, has appointed a committee whose duties are to raise the standard of men who serve as guides in that district. It is the scheme to have committees appointed by each

club and to have said committees work together under a general plan.

Success will be slow in coming even under the best of conditions, but the movement is a good one and should receive the hearty support of all the clubs of that district. Every club member should take a personal interest in this step forward.

Communications from any club members, bearing suggestions or criticisms will be thankfully received by Andrew G. Weeks, Jr., No. 8 Congress St., Boston, acting for the committee of the Triton Club.

The Laurentian district north of Quebec, is not so well known to us as the Laurentians further West, but so far as our experience goes, the Canadian guides, whether Indians, French Canadians or of British descent, have nothing whatever to learn from the Maine guides. For those whose tastes run to extreme luxury, who require "camps" that are really elaborate dwelling houses, and who want everything made easy, the Maine guide may be preferable to the homespun article produced in the Canadian backwoods; but those sportsmen who delight in wilderness life, and require *men*, capable of carrying, let us suppose, a 96 pound canoe over an eleven mile portage without grumbling, and also able to carry a load of 200 pounds, or even at a pinch, just double that weight, as one young Indian we know can do, if necessary, will find the guide of the Laurentian chain as good a servant as he should ask for. Better woodsmen and canoe men do not exist. Our correspondent must have been unfortunate, and we will venture to say that his experience has been altogether exceptional. There is probably no need for any committee to have been appointed to raise the standard of the guides in the district north of Quebec. If it should prove that we are in the wrong as regards this particular district, it is very certain that we are right in our contention, that, as the general thing, the Canadian guide would be bad to beat at his own game.

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

The annual show of the Westminster Kennel Club, the first in importance on this side of the Atlantic, will be held in Madison Square Gardens, on February 11 to 14 inclusive. The entries have gone on increasing year by year, and, as the number of dog fanciers is also being added to immensely, there is no reason to doubt that the show of 1903 will be a record one as far as the number of dogs benched is concerned. At the same time the quality in all breeds should be equal to anything yet shown, as amateurs and professionals alike have shown a disposition for years past to breed only from the best types, and this wise policy is now beginning to bear fruit. The prize money runs up into the thousands, besides which there is a large number of valuable specials, contributed by specialty clubs, etc. There is a strong array of judges, several as yet unknown in the judging ring, but all are specialists in the various breeds assigned to them. Among those who have been honored with an invitation to place the ribbons at this important function are two Canadians, namely, George Douglas, Woodstock, Ont., who will undertake sporting spaniels, and Mr. A. P. Fraser, Toronto, who will pass in review Scottish terriers.



The Woodman's Handbook, Part 1, by Professor H. S. Graves, Director of the Yale Forest School, is a very useful publication recently issued by the Bureau of Forestry for the United States. As stated in the introduction, the purpose of the Handbook is to give a collection of tables and rules of practical use to lumbermen, foresters and others interested in the measurement of wood and timber. Only such information as is deemed of immediate practical value to American woodsmen is included. The unit of measure most commonly used in this country for selling logs and lumber is the board foot. The amount of manufactured lumber which can be sawed from logs of different dimensions is shown in log rules. Satisfactory log rules are difficult to construct, because the sawed product of logs depends on the skill of the sawyer and on the kind of machinery used, which necessarily

vary. There are now in use in the United States and Canada over forty different log rules for board feet. The old Scribner rule used until recently in Manitoba and the North West Territories, the Scribner-Doyle rule used in Ontario and the special rules used in Quebec, New Brunswick and British Columbia are included more or less fully. As the cubic foot is used commercially in America to a very limited extent, only the simplest rules for its use are given.

The first volume comprises rules for finding the contents of logs and standing trees, methods of estimating timber, a brief outline of forest working plans, and a description of instruments useful in the woods.

A critical consideration of the various log rules now in use will be given in a later bulletin of the Bureau of Forestry.

It is the intention of the author to include in a second volume directions for studying the growth of American trees, tables of growth, as far as the growth of American trees has been studied, directions for the study of the future production of forests, tables showing the future yield of forests, and miscellaneous tables of value to woodsmen.

As considerable copyrighted matter is included in the Handbook it cannot be obtained by purchase either from the Bureau or otherwise, so that its area of usefulness may thus be somewhat restricted.



A contributor to a recent issue of the London Field, gives the following account of salmon fishing in Newfoundland:

In the first place, the best way to go there is by the Allan Line to Quebec, getting off at Rimouski, where a train meets the boat and takes you via Truro to Sydney, Cape Breton; thence a steamer takes you about eight hours to Port aux Basques, the western terminus of the Newfoundland Railway. This brings you within an hour's run of the Codroy, a fine river with plenty of pools and full of fish. From here you can move on to Crabbe's, Robinson's, Fischell's, and Harry's brooks. At the last you will find good accommodation at Messrs. Powlett and Dodd's two

hotels, Bay St. George and Log Cabin. Here are supplied tents, guides, and all camp equipment. From this base four rivers can be easily fished; and as they are directly on the railway track, the fishing is more accessible than in the case of those rivers which are farther away from the line; but, on the other hand, this has its disadvantage, as there are more fishermen, all the rivers being free.

Now, I wish to set at rest once for all the prevailing idea that Newfoundland salmon will not take the fly. I can only say that I used nothing else the whole

caught. I made the mistake—it being my first visit—of going to a late river for salmon first, instead of an early one, consequently my first fortnight was wasted. However, I am quite satisfied with what I saw, and mean, if possible, to go over again next year, hoping to profit by what I have learnt. The country is full of salmon rivers, few of which have ever had a line on them, and as the Government have appointed a fishery inspector in the person of Judge time I was there, and, notwithstanding a somewhat dry season, I was fairly successful in catching fish. My best take

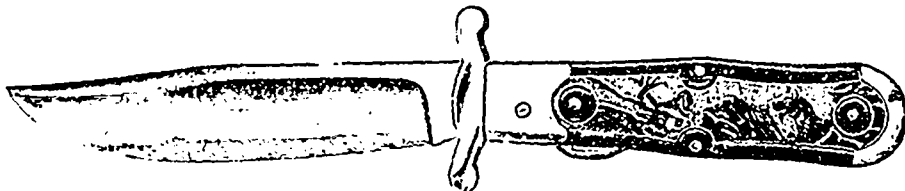
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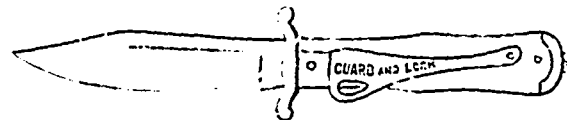


it SERVES AS A GUARD which protects the blade and at the same time furnishes a ring by which the knife may be suspended from a hook at the belt if desired. The cuts herewith show the construction better than any description.

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was seventeen salmon in four days, but that was nothing to what some rods Prowse, a most painstaking official, who is working hard to put down the netting and stop all kinds of poaching, there is no reason why in time this should not be the finest fishing country in the world. However, let no one attempt to go there who is not prepared to a certain extent to rough it, and in places to rough it pretty considerable.

In the first place, there are no roads whatever in the island, except in the vicinity of St. John's. The railway cuts across most of the rivers, including all those I have mentioned, but after quitting the train one has to walk over one of three abominations (probably all three), viz. : Along the railway track, stepping from sleeper to sleeper ; or by a so-called trail, through marsh and jungle, which is so rough that it can be easily lost even by the guides ; or up the bed of a river, which means walking over boulders and constantly fording from side to side. The latter is the best route if you have a boat for your baggage and a canoe for yourself. The flies also are very bad, and make your life a burden. Black fly, deer fly, sand fly, and mosquito are to be met with everywhere.

The sport to be obtained, however, is well worth the trouble and discomfort incurred. I should add that the salmon do not run large ; my experience this season was six or eight grilse, averaging 4 lb., for one salmon of 10 lb. to 15 lb. I saw some large fish which might have weighed 25 lb. The best fish taken this year on a fly was 26½ lb. Trout are numerous, and in many places run to a big weight. I trust these few notes may be of assistance to anyone who wants an economical fishing trip in a lovely climate.

The Angling Editor of the Field says : " American anglers have been complaining that their native brook trout (*Salmo fontinalis*), which is a kind of charr, has been disappearing where rainbow trout have been introduced, the inference being that the introduction of rainbow trout is therefore a mistake. This is a strange position to take up, for anyone who has caught and eaten both these fish would, I imagine, have no

difficulty in saying that the rainbow trout was far superior to *S. fontinalis* in the river, on the line, and on the table. No doubt there are in America fly fishers who have a sentimental attachment, bred of long association, to the brook trout, as there are men in England who would be sorry indeed to see the rainbow trout or any other fish take the place of our good old English brown trout, *Salmo fario*. Yet who would not say that the sea trout affords better sport than the brown trout, and if this is admitted, the rainbow trout must also be so far considered better than our native species, for it closely resembles the sea trout in appearance, and in its free rising and gallant fighting habits."



We are in receipt of a green covered volume with white and gold lettering, entitled " Camp fires in the Wilderness." It is written by E. W. Burt, and published by the National Sportsman Press. Perhaps the best idea we can give our readers of the peculiar merits of this book is by offering Mr. Burt's account of the caribou. We shall not cut out any of this valuable information, as we consider it rather a brief description as it stands. Even these few lines, however, will show the profound study the writer has given his subject, and convince the reader that the last word about the caribou has now been said :

" The caribou is found mostly in New Foundland (?). They are in appearance like a cow, with short legs and broad feet, which enable them to travel rapidly over the snow. They spend the winter in the shelter of thickly wooded sections, feeding on the black moss which hangs from the trees. Their thick fur turns white on the approach of winter, and they herd in large companies in the dense woods. Early in September the velvet on the horns rubs off ; the stags are now in their prime, and the rutting season begins in October. During that time the stags fight fiercely, and will not hesitate to rush upon hunters when they get sight of them. Their great antlers are formidable weapons. They use their feet also. Sometimes their horns become interlocked, and both animals perish by starvation. The period of their migra-

tion begins with the early autumn frosts, when they start to graze southward. The Maine law on caribou is closed until 1905."

The author seems to have terrible things on the brain, for further on when speaking of the timid lynx, he remarks: "In winter time, when driven by starvation, the wildcat will not hesitate to attack a man, sometimes springing upon him from the branches of a tree, where it has been lying in wait. If you see a wildcat in Maine, shoot it, and you will not be arrested for breaking the law." All of which leads one to reflect upon the things one comes across in print, when one has not got a gun.

"Hints on loading and reloading shotgun shells" is a small pamphlet issued by the Ideal Manufacturing Co., New Haven, Conn. It is one of the most useful little books we have seen for some time. Contrary to the general experience, it is worth keeping, although it costs nothing.

We have been notified by Mr. N. S. Hyatt, Commodore of the American Canoe Association, that Mr. H. Lansing Quick, of Yonkers, N. Y., is acting as Sec'y-Treasurer until further notice, in the place of Mr. Louis Simpson, deceased.

The London Fishing Gazette is running a series of articles dealing with "Inexpensive salmon and sea-trout angling." The author, Mr. Augustus Grimble, is evidently well acquainted with the waters of the British Isles, but if he wishes to make his series of papers complete he should visit the Dominion; certainly, when it comes to inexpensive salmon and trout fishing, we can leave Europe a long way astern.

A valued correspondent of ROD AND GUN, Dr. George W. Blakeslee, of New York, writes to us as follows:—"That portion of Quebec lying between the Gatineau and Rouge is well known to me, especially the head waters of the Lievre, which I visited the past autumn.

My vacations for four years past have been spent on this river, and for two months this autumn I had a glorious time with rod, gun, and camera. Lake Megamangoos, the head of the left fork of the Lievre, is a grand sheet of water, as yet undisturbed, and the forests about it untouched by the lumbermen. It is an ideal spot for a two or three months' stay in late summer and early autumn." To all of which we give a hearty Amen.

Of all the English sportsmen's magazines, Baily's is one of the best, and the issue for January, which has just reached us, is quite up to the usual standard. Although English sport does not follow the same lines as Canadian sport, there is the strongest sympathy between Canadians who shoot, fish and ride, and their fellow sportsmen in the old land, and men who wish to be up-to-date and broad in their views, cannot afford to miss such magazines as Baily's.

At a general meeting of the Montreal Canine Association held on Saturday evening, January 24th, Mr. H. L. Thomas read an interesting paper on the "British Bulldog," of which breed he is the owner of several remarkably fine specimens, some of which have done a lot of winning both at home and abroad. Lack of space prevents us giving the paper in full at the present time, and we have only to say that it was listened to with attention and received the approval of those present. During the meeting it was announced that the following, among others, will judge at the annual show in the Arena during the month of May next: Mr. Richard Croker, jr., New York, bull dogs; Mr. H. Thomas, Belleville, sporting spaniels; Mrs. Kernochan, New York, Irish terriers; Mrs. J. A. Pitt, toys and pet dogs. Mr. Frederick Freeman-Lloyd, who has had considerable experience as a judge in England, and is at present editor of the Kennel Department of the New York *Telegraph*, will undertake all breeds not otherwise assigned. Mr. Joseph A. Laurin was elected delegate to the American Kennel Club.



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

The Official Organ of the Canadian Forestry Association.

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