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Can you send over some Trap? I don't mean to flater but it is ahead of inyithing we get liere.A. W. W., Ratavia, N, Y.



# A Bear Hunt by Moonlight. 

BY BERT DE WINTON.

Jack and I had determined on a trip back into the mountains. Our occupations were such that vacations had to be taken some:what on the instalment plan, as it was rarely we could manage to get away for more than a week at a time, for a rum back to the bush. Naturally, with such a limited time at our disposal, our choice of grounds was equally limited, but withal we had seldom any cause for complaint with our week off when we made the Laי"rentians our "stamping grounds." They were easy of reachonly a matter of a couple of hours' run by rail, and then back into the mountains another hour behind a good Canadian pony, when were reached the first of a chain of lakes, where most of our short stunts were put in. And scarcely a season passed but we managed to get back into our favorite hau. 1ts a few times. Game of all kinds was fairly plentiiul, and the lakes, rivers and creeks are full of fish, and we therefore always had a good time on these short excursions up the line.

Settlement goes back through these parts in a jagged, uncertain sort of edge, parallel with the railways, and one climbing along over a mountain or through the bush, comes upon a clearing in all sorts of out of the way places. A man's nearest neighbor may be a quarter of a mile away, or he may be five,-it makes but little difference to these backwoodsmen, who speedily become discontented when settlement encroaches too close upon their "famm," and it is no
matter of serious thought to pull up stakes and go further back to where they can be left alone.
It was to one of these little clearings we had betaken ourselves inis the fall of 1898, where we proposed putting in the better part of a week or two, with no other object perhaps.. han a few brace of partridge, some ducks and a little quiet fishing.
Jack, Harry G. and myself comprised our outif. Jack and myself knew almost every stone throughout the mountains, but with Harry it was different; he was a veritable tenderfoot, as far as the mountains were concerned, but as good a hand in a beat to windward as ever seefed a sail in a "blow." His experience, up to the present, in the fishing and shooting line had consisted of an occasional snipe and a half day with a rod in the hopeless task of trying to hook a sucker, along tb: water front in the vicinity of the city. Hence, it was more with a desire to "see what you fellows find so much to talk about," as he expressed it, that he volunteered to come along, just to fill up.

Our bush friend, " Big Jim," picked us up at the lakes, where Ned and his pony had dropped us, and took us the balance of the way up to his cleazing, over various lakes and portages.
Big Jim was a worthy representative of life in the wilderness, straight as a string, a shade over six feet one in his socks and broad of beam in proportion; the weigh beam went up with a thud
around 220 pounds when he stepped on the scales. He looked every inch a man, fit fer anything, and his looks did not belie him, for lie could do at a pinch, the wori of half a dozen ordinary men, but when it came to sport-he did not understand the meaning of the word. All his life he had been side partners with the woods and its denizens, and looked upon all game as just so much food in his usunl bill of fare, and I do not believe he would have rolled out of his bunk to pot a grizely passing his door, if his larder happened to be full at the time. Chat is not to say he could not shoot. By no means, for I never saw another who wasted as few cartridges for the amount of game taken, as Jim, when he did go out to humt.

It was this familiarity of the man with his surroundings which led hin to mentionin a casual manner, on the seccud day of our arrival, that " those 'tarnal bears are playing the devil with my oats in the back clearing."

Now, bruin is quite impartial as to what he eats, provided he can get it easily, and he will lick out your soapgrease at the kitchen door, or carry off a young pig, with equal monchalance. He also has a sweet toolh, and is quite at home in the berry patches, which are scattered freely throughout the bush, or an oat field when the grain is in the milk.

Of course, after Jim's remark all other kinds of sport was loid to one side, and the means of capturing that bear discussed pro and con. The probability that he might be away from that locality dozens of miles, was never admitted into our plaus. After a leisurely supper, for Jim was never anything but leisurely. regardless of our impatience, we drew the shot from our guns and slipped a ball in its place. We were for firing them away, but Jim advised as little of that kind of melody as possible if we wished any success, as a bear will usually give a wide berth to the sound of firearms.

A short turn of half a mile over an old logging road brougint us to the oat fie!d in question, an oblong patch of ground containing about six acres, in one comer of which siood a good sized barn, half logs, half boards. One half the mow contained hay, and in that part we took
up our quarters to wait and watch for his bearship. Jim advised taking watch about, and curled himself into his blanket and immediately went to sleep. By the time we had got comfortably settled the night had set in, the moon not rising until nearly in o'clock, after which the whole field was flooded with its silvery light, and from our elevated position everything could be plainly seen over the black-stump dotted field. At first we all remained on the qui aive, each eager to catcl the first look at our expected guest.

The night, however, passcd away, and stiit no appearance of our quarry, and in like manmer so did another, but on the third night we were rewarded for our vigil. It was Harry's watch, but he evidently had fallen asleep at his post, :at accusation he veliemently denied, of course, for it was hig, sleepy Jim who quietly roused us to the sense of another presence than our own, in the lower left hand corner of the oatfield. There, not fifty yards away, was a bear, sometimes on all fours and sometimes erect, as he would reach for a head a little higher than the others. quietly cropping the heads of the half ripe oats. He was suspicious, however, and the slight commotion made by our rising did not serve to allay his fears, for now and then he would stop eating, and alternately dropping on all fours or rising to his hind quarters, he would sniff the air as if scenting danger. Fortunately we lay down wind from him, or our chances for a good shot would have been slight indeed.

The sharp click of our guns on the still night air, as we cocked them, caught his ear, for rising quickly to an upright position and sniffing in the direction in which we lay concealed, he dropped again and made for the bush. But lie was not quick enough, for just as he dropped, Harry and Jack blazed away at him, one of the shots catching him in the right flank, for he turned and snapped at his side as he ran. As he did so I let him have my right barrel in the front shoulder. He fell, got up and again toppled over, but rose again and started once more for the shelter of the brush on three legs. Then Jim's rifle spoke. With a grunt and a smarl he pitched orer head foremost, struggled to regain his feet, turned
and bit his side, and fimally rolle. over bleeding from his three wounds. Jim's ball had hit him just behind the leit shnukder, and there is no doubt but for his good shonting, we would have had our three aights in the bari to mo murpose, for while the shots in the flank and forequarter were enough to disable
him, they were not aecessarily fatal, and the chatices were we would have lost our bear if he had once managed to reach cover.

We all enjoyed smme of his juicy steaks, but Jack won the to ss and the skin, and it maly still be seen ornamenting his stady Buor in front of the grate.

## How Hull Farmers Shoot Bears.

BY J, SMARUON.

Bears are plentiful this season. Five were seen in a single field one night lately, standing upright in the ripening grain gathering the heads together within the clasp of their mighty forearms that they might chew away at the oats. The amount of damage the cumbersome beasts will do these bright August nights by trampling down and devouring would hardly be believed. It is no wonder that farmers wage bitter warfare against them, even thouth Bruin's skin is not in prime condition. and is, indeed, of scarcely any value just now.

The two men who saw these five bears had been watching for them from trees, but had unfortmately stationed themselves on the other side of the field. Being no great sportsmen they took such aim as they could and fired together, driving the bears away. To their surprise a young bear was found dead next morning at the edge of the woods, killed by a spent bullet from one of their shotguns. There is one little spot in the top of a bear's skull where the bone is $v \in r y$ thin and brittle, and just there the ball fired at a venture chanced to strike.

In that same field last year, while the wheat was standing in stooks to dry, two playful young bears, having had all they wanted to eat, proceeded by way of annusemfnt to overturn all the sheaves and scatter them. They were espied soon after midnight by the fnrmer, who was going home with his bride from a dance. The youngsters were so interested in their sport that the: did not notice the lookers-on, who were somewhat ruefully
watching their antics, until the comical side of it struck the young people and they burst out into shouts of laughter. The bride afterward declared that it was as good as a circus to see the clownlike mamer of the two bears as they went about their play. The farmer was particularly struck with the industry of the fun-makers, as before they fled at his guffaws they had scattered more sheaves than lie and his hired men had been able to set tup in half a day.

It is tunusua? for bears in the open to allow themselves to be appronched, as they are exceedingly timid at such times, and their sense of smell and hearing a-e then very acute. The regular plan followed about here for their detection is for the watcher to station himself on a ladder at the head of the bush, some twelve feet from the ground, and therefore out of the scent of the bear, betore nightfall and quietly await the coming of the game.

One hunter who did not take tup his position until darkness had set in lad just been worked up to a degree of excitement by a pronomnced saiffing near the foot of his perch, when there was a great runtling amid the branches of his tree. The thought that it was a wellloaded beech and that bears are fond of beech muts flashed acrosis him just as a big black object came sliding down the trunk. Before he could think of shooting, the great hams of a bear knocked him and his ladder down to the ground, where a second bear awaited the coming of his mate. Whether he actually fell upon this one or upon the body of the climbing
creature he never knew, but he fell upon something soft. He was quite unhurt, when, at his frightened call and the accidental discharge of the rife, the two alarmed creatures ran into the woods.

Last week a man on a ladder had a good opportunity of watching a large, cautious old bear approach his oat field. Every few yards, as he came down the lumber road toward the open, the bear halted and, suiffing the air, rose upon his haunches to make sure that the const was clar. That there might be danger from above never seemed to strike the wary brute, though a glance upward must have revealed his enemy silhonetted against the moonlit sky. On he came, and after a long final survey made a dash for the fields. As he came into full sight the hunter fired, aiming between the shoulders or the bear, which swerved enough from its path to upset the ladder and bring the man to the ground.
The fall was somewhat broken by the underbrush, but as the man fell the bear pounced upon him. After a full minute spent in utter stillness the man, unable to endure the weight upon his chest, groaned alund. As the creature made no movement. he took heart to wriggle from under the huge hairy load, and after much exertion had the satisfaction of standing over the lifeless carcass of the bear. His bullet had sped true to its $\mathrm{e}^{2}: \mathrm{m}$, and had done its work in just the nick of time upon which his life depended.

Dan Pretty, a well-known guide, once, under similar circimstances, watched a bear nosing his way to a grain field, but in that case Bruin raced back into the woods, making Dan feel certain that some unlucky movement had betrayed his presence. In a few minutes, however, the wear reappeared, walking before and escorting with many gruntings a hand:some, larger animal, which followed shyly, keeping its nose to the ground. A fortunate shot sent the first bear into its death flurry, whereupon the second
arose upon its hind-quarters and turned around and around screaming in a piteous mamer. With the lielp of a comrade, Dan killed the second bear. The reason for the courtesy of its companion was made clear by the discovery that it was blind. The extraordinarily plump condition of its body showed that kind friends must have kept it amply provided with food.

This same Dan Pretty :vas once the witt:.os and referee of a terrible fight between two bears. He was following the trail of one he had wounded in an oat field one afternoon, when he came upon sucin a sight as very few men have witnessed. In a little opening in the woods an immense brown bear and a socalled silver-tip were engaged in a life and death struggle, which, from the torn up condition of the ground, had already lasted a long time. As Dan put it, they bit at each other like dogs, clawed fike cats, boxed like prize fighters and westled like Cornish miners, as nearly as possible at one and the same time. The brown bear, whish had escaped from captivity after severely injuring its dancing master some months before, was no match in agility for the native, but had an immense superiority in weight and strength. After numberless vain attempts the big fellow at last managed to get in a terrible swing upon the side of his enemy's head, with sent the silvertip reeling. Evidently considering the fight wou by this blow the brown bear sat dow: and began to examine his wounds, when, like a flash, the otherushed in again and, fixing his teeth into the brown bear's stomach, rent and tore him in a frightful manner.

Dan felt himself called upon to object to such foul play, and took a hand in the scrap just then, pumping enough lead into the silver-tip to keep him quiet forever. In spite of wounds the big brown bear slipped away and was not seen again.

## . A . 35 Caliber Winchester Rifle.

The latest productions of the Winchester Repeating Arms Co. are a .35 caliber rifle and cartridge. The well known 1895 model with box magarine has been adapted to handle a new smokeless powder cartridge, known as the Winchester .35 caliber, which is the most powerful shooting cartridge, at

The Winchester .35 caliber cartridge embodies high velocity ansl conseguent flat traject.ry, great energy and striking power, making it a very desirable cartridge for hunting the biggest game known. Scme idea of its tremendous killing power may be gained from the fact that the striking energy of this

both long and short ranges, ever offered. Rifles for this cartridge are made with twenty-four-inch round nickel steel barrels, making them handy for hunting purposes. The diameter of bore is .350 inch, depth of rifling .004 inch , and the twist one turn in twelve mehes. The magazine holds four cartridges, and one cartridge can be carried in the chamber. Shis rifle, finished with a straight grip stock and forearm of plain walnut, weighs about eight anci a halt pounds. Rifles of this caliber can be furnished
cartridge at 200 yards is greater than the muzzle energy of the .45-70-405.

This cartridge is loaded with a 250 grain soft point metal patched bullet and special smokeless powder, which imparts to the bullet a muzzle velocity of 2200 foot seconds, thereby developing a muzzle energy of 2685 foot pounds. The penetration at fifteen feet from the muzzle is fifteen seven-eighths-incin pine boards. Owing to their size and high velocity, .35 caliber soft point bullets upset, or mushroom, in a most

with rifle butts with steel buttplates, or shotgun butts with either steel or rubber buttplates, without extra charge. Extras which the company furnish for the model 1895.30 caliber Army rifle can be furnished for the .35 caliber at the samr. list prices ; but octagon or half octage $n$ barrels or pistol grip stocks camot be furnished for this gun.
perfect manuer. Following is the table of ballistic data of the Winchester .35 caliber cartridge :


## crescien 0

On a ranch near Medicine Hat, Assiniuoia, Mr. James McCregor has been engaged in an interesting diversion for some years. He has 1,000 acres fenced off with barbed wire, and within this
enclosure has been breeding antelope and releasing a certain quantity each year until there are now several bands within a radius of one hundred square miles.

# Cloud Photography. 

## HUBERT M'BIEAN JOHNSTON.

In endeavoring to rid ourselves of baldheaded skies in negative making, $\cdot$ it is possible to adopt any one of three different methods. First, we may have real clouds, by which it is meant those that were actually in the heavens when the exposure was made ; then, we may have real clouds printed in from another negative that had been made forits sky effect alone ; or, we may have artificial clouds on the back of the negative. Any one of the three schemes is productive of results that are superior to plain, white paper, though, depending upon the result aimed .a, each way is apt to prove the best. For instance, in pureiy pictorial work, there is small reason to doubt that the best results are to be had from printing in. To photograph a landscape alone, waying proper attention to light and shade, composition and arrangement of mass, is by no means a. simple task. To do all this at its very best and at the same time to watch for the most pleasing disposition of cloud lines, becomes almost an impossibility. In such a case, therefore, it is best to pay no attention at all to the upper part of the picture, trusting to be able to supply whatever is needed from some other nesative at a later time. But then again, printing in means work and delicate manipulations. Difficult even with Solio, Aristo and other printing out papers, how much more so must it become, when one is in the habit of employing Dekko or Velox or is making lantern-slides. Undoubtedly, for work of this type, where one has to judge exposures, the method where both clouds and !andscape are included on one plate, has much to recommend it. Of those negatives where the clonds are supplied b: faking on the back with lamp-black or opaque, only passing comment need be made. They have never been capable of crmmanding consideravion in connection with the term pictorial and never will be. The method's only claim for notice is that in such prints as are
intended for the er:graver, it is better than nothing at all, inasmuch as it serves to break the monotony.

Just because so much has been saxd and written about cloud photography. amateurs have gotten into the way of regarding it as something very difficult and requiring all sorts of special rayscreens and plates. On the contrary, it is quite possible to obtain both clouds and landscape on one plate at one exposure, and on an ordinary plate at that. This can be done by what is referred to as a modified exposure, a method which consists in cutting off some of the light from the sky during the exposure. There are a number of simple ways of doing it Perhaps one of the vest is that which calls into piay a shatter that is fastened to the lens tube by a hinge at the top and that swings up and then down again to make the exposure. As will he eacily seen, this allows more time on the landscape than on the sky, greatlyto the benefit of both. Needless to say, this method is not suited to quick exposare wor:: and wil' call for a plate a trifie slower, perhaps, than the one you are in the habit of using. But a slow plate is no disadrantage. The thicker emulsion with which it is coated whll allow of your securing more half-tone and gradation than a thimer and faster one would permit. Small obstructions, such as a tree, on the sky line, will not inte-fere with this method of exposiure, but where there are mountains or a forest in front of the lens, the scheme will have to be abandoned or the middle of the plate will be underexposed.
In cloud photography, before one even considers whether or no, an orthochromatic plate is a necessity, must come the question of halation and its cure. This is true whether only clouds alone are being photographed or both clouds and landscape on one phate, though with the latter it is more apparent. Suppose, as an example, you take a photorraph of a sumset with a building in the foreground
and cutting off part of the sky. Look at the halo of light surrounding it. The illumination appears to be strong and to have spread out over the building. The explanation that it has been renfected back at an angle from the back of the plate is almost too old to refer to. But consider a moment something that you have probably overlooked, because there was no building to attract your attention to it. If the light overspreads in one instance, what is there to prevent it doing the same thing every time? And in a bright sky, who is ever going to notice it? Iet, the fact remains, it is there all the same and just as much as it obscured the brilliancy of that building's edge, does it detract from the cleariess of outline of the cloud forms. Moreover, inasmuch as the edges of the cloud are usually the thimest and most delicate parts, one of the chief beaties of the subject is lost. To aroid the difficulty; a most excellent idea is to use the doublecoated, non-halation plates made by some manufacturers. Though these are a trifle slower in their action, owing to the thickness of the film to be penetrated by the light, when one is using the shutter referred to herein, but little inconvenience results. Should one not care to go to the expense of buying such plates, however, ordinary plates coated with the usual lamp-black backing, are quite satisfactory. There are aiso a number of prepared backings on the market that are very simple and clean to handle.

The question of orthochromatic plates is more or less debated. Some workers contend that the most true to life results are to be had on ordinary plates, whilst others claim that a ray screen and all the rest of that paraphernalia is an absolute necessity. The fact is, ordinary plates, under certain conditions, will give fairly realistic results. On a day. for instance, when we have very pronounced clouds standing out against a colorless ground of plain grey, there is no real reason why the ordinary plate ought not to supply all needs. Take, however, a day when the heavens are overcast with light, fleecy clouds on a blue field, and one will require both orthochromatic plate and color screen to get anything like truth in values. With an ordinary plate all would appear white and plain, owing to
the fact that blue leaves no impression on the sensitive film. But even with all the proper equipment, it is no easy matter to render blue properly. A very common error that the tyro in cloud photography is going to fall into is the using of too dark a screen. The result will be that the picture will resemble that imitation impressionistic thing that came out in the July number of the Photo Era, and the clouds will bear a strong resemblance to tufts of white cotton wool pasted to a sheet of carbon-black cardboard. This is caused by the combination of the dari orange screen and the blue sky; the heavens take on a dark green tinge and don't photograph at all, The difficult; is easily obviated by using a Bausch and Lomb ray filterer and diluting the bichromate solution. Thus, it will be perceived that a very strongly defined cloud on a blue shy is going to necessitate a weak ray-screen and zice zersa. But the only way to judge when a screen is too dark is to note the occasions on which it leaves the sky underexposed and at the same time fully exposed the dark, heavy foreground. Color sensitive plates, particularly Cramer's, may be used alone and yield very satisfactory results. Inasmuch as they are partially corrected for blue in their making, they serve to show the contrast between those portions of the picture and such as are white, or at least lighter. It goes without saying, of course, that a screen is unnecessary with a yellow sumset, just as at the same time, it is understood, that where the sky is red, it is an essential.

While referring to sunset pictures, it may not be amiss to just mention and call attention to the falsity of the socalled moonlights made in this way. These pictures, so frequently made across a sheet of water, are the result of a short exposure with a small stop and a develpoment long enough to secure white clouds and a dark ground for them. Their resemblance to a real moonlight is most remarkable, owing to its absence, a fact which is easily proven by making a real moonlight and seeing it for yourself. In the genuine night picture the foregrom is the most brightly lighted portion, the distance and heaven gradually fading away into nothingness. In
the fale moonlight, the condition of affairs is just reversed and the distance is strong and clear, with dark, shadowy foreground. The real sunset picture requires a longer exposure, in order that the detail in the foreground may show when the sky has developed up to the correct density. If the amateur feels that he must have a "moonlight," he wili find it better to secure it by full exposure and slight development rather than by short exposure and forced development. And with long exposure it is of course going to necessitate the use of backed orthochromatic plates to preserve the clouds.

Just a word or two on developing processes. To catch clouds on an ordinary plate one must give a short exposure and carry on the process of development very slowly in a diluted solution. The more we dilute the developer the more often is it possible to save an over exposure. In such a case normal solution is out pf the question. As the sky appears and commences to stand out a little, more stock solution may be added for density, but care must be exercised not to overdo it. Nor must any one take any chances on over developing in cloud work. In fact, if anything. rather err the other way. For the edification of those who have but a dim idea of the requisites of a good cloud negative, let it be stated that the principal characteristics ought to be an image devoid of fog, in which the range of half-tone is perfeci and the extreme high-lights fairly inteuse. A developer rich in pyro, or whatever agent is used, and weak in accelerator, is useful with the ain of bringing out the highlights first and securing in them good printing power by restrained, but not too weak, developer. With corrected or color sensitive plates, development may be carried on with solutions of full strength.

The only places where extra care is needed is to stop before the negative gets
too dense, particularly when both clouds and foreground are on one plate. If the exposure has been made for the foreground and not for the clouds, every part of the plate ought to be done about the same time. The exact moment to stop development is when the sky commences to be a trifle more dense than the foreground. Remember that the sky half of the negative gains density twice as fast as the other part. A good idea is to keep the solution well over the foreground, with occasional washes over the other part to prevent the formation of a definite line.

In the making of cloud negatives for the purpose of printing in with our landscape negatives, it must be borne in mind that clouds are subject to the same rules as terrestrial objects. No one would think of photographing them at the zenith and introducing them at the horizon, but, even so, proper care is not always displayed in placing them at the proper distance above the horizon line. In the first place the clond ought to be taken with a lens of the same form as is used on the landscape, and the direction, strength and quality of the lighting sliould be the same in both. In all cases either include the horizon line or mark the negative in some way that you may not commit the fonlish error of printing it upside down.

But to go on and deal with this subject any farther would make the yarn well nigh endless. Perhaps the few remarks that have been made here will not do more than to point out the way, hutonce one starts on that way he quickly learns a lot for himself that somehori never finds its way into print, and that is after all, the very essence of the matter. Suffice it to say in conclusion, thar the amateur who has never tried cloud photography has before him a nem field full of mexplored delights, and he would do well to lose no time in jumping in and doing a little experimenting.

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The Fish and Game Protection Association, with headquarters at Quebec City, is in a flourisling and vigorous condition, and reports a paid-uprn mbersinip of four hundred. It is doing excel-
lent work. This is a distinct organization from the Province of Quebec Association for the Protection of Fish and Game, with headquarters in Montreal, which has been in existence many years.


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# My First Moose Hunt. 

BY L.T.-COL. ANDREW HAGGARD. D.S.O.

The moose, the biggest of the deer tribe in North America, is practically the same animal as the European elk, still to be found in Scandinavia, northern Russia, and possibly in some of the northermmost parts of Germany also. Moreover, he is of the same gentus as the old Irish elk, whose enormous horns excavated from bogs fairly take away the breath of the sportsman who views them upon the walls of some museum or country house adjacent to the scene of their discovery. Alchough, however, his antlers cannot compare with the gigantic trophies of the antediluvian Itish elk, the moose of Canada is himself a tremendous creature, an old bull moose frequently standing as much as nineteen hands at the shoulder. With his very high withers and his Roman nose he is an ungainly beast, especially as his enormously tall legs give one the idea of being too long for his body. For all that, he is agile in the extreme, and those tall legs of his seem equally adapted for stepping over the fallen logs lying everywhere in the Canadian forest. sr for splashing through the muskegs or swampy prairies, where he dearly loves to roam in searci of his favorite food, the willow, for the luge hoof widens out as it sinks into the bog, while the great strength of the moose enables him to lift it out again easily and without apparent effort, no matter how decply the limb may sink. With his huge, wide-spreading palmated antlers towering above his towered head, and his wild eye fixed upon you when about to charge, a moose is a ferocious looking animal indeed. How great is his strength none know better than the writer of these lines, whose scarred wrist bears witness to the occasion when for five minutes, at least, ine preserved his life by hanging on to the horns of one of these lange creatures. who, after charging, carried him about the while as easily as had it been but a fly upon his antlers. That
was a terrible experience indeed, but as it was not my first moose, we will not go on with it here.

There are two methods of hunting the moose in the Dominion of Canada. One, which is chiefly practised in the lower provinces (that is, Nova Scotia and New Brunswick), is by hiding at night in the rutting season and calling. The call, which is made to imitate the tremulous cry of the cow moose, can be heard at a great distance. It is made with the assistance of a sort of fummel of birch bark, and, if the cry be skillfully given, will on a still night bring the bull moose from a distance of a mile or two right up to the very muzzle of the rifle of the hunter who is waiting to slay him. Thus seeking for love he finds death. It seems scarcely an honorable way to kill this mighty monarch of the forest !

The other method, that of still hunting, is that more usually pursued by the Indians and other hunters of the lone Nortinwest; and it is only by careful tracking, by great endurance, and by the greatest precaution that success can be attained by him who would kill his first moose. I am not alluding to another method of still hunting which usually depends more upon chance than on skill; this is shooting the moose from the birch-bark canoe, as he comes down to drink at the borders of some far-away lake or stream. This is a method of hunting far more successfully practised in shooting caribou than moose, as one can usually be more certain of the exact haunts of the former at a certain period than of the latter, who is a great traveller. Miany a moose certainly has been slain in this way, but he is more likely to be obtained quite unexpectedly by a chance shot from a canoe than when deliberately employed in looking for him in this manner. Great slaughter of moose also takes place at times by the red Indians in the depth of the winter. At such a
time a band of moose will form what are calle! moose yards, within which they trample down all the snow, leaving a rampart all around them, traversed by only one or two exits. But it requires the Indian, with his love of reckless waste of life, to kill off a band of moose in a moose yard; beside which, to track them to its entrance through the deep snow, with the thermometer down to 40 degrees below zero, is more likely to prove fatal to the white man than the moose.

In order to prevent, if possible, the wholesale massacre in this nanner of the larger food-giving animals, such as moose and wapiti, the Hudson Bay officials in the Northwest, upon whom the Indians are dependent for their stores, have of late years steadily refused to take from the undians any of their undressed hides. It is only when the skins are tanned, dressed, and turned into shirts, gloves or moccasins that they wili be accepted at the Hudson Bay posts; nor will the carcass of one of these animals be bought from an Indian. In spite of this the Indians are rapidly killing out all the food by wantonly destroying, whenever they get the chance, far more game than they can use. The time will soon come, therefore, when, if they do not take to agriculture far more than they do now, they must starve and be wiped off the face of the earth, as they have themselves wiped out the buffalo. It is especially in winter that the greatest destruction of big game goes on, for then not only does the snow much facilitate the tracking of the animals, but also often impedes them in their escape, while the wily savage cau follow on snowshoes.

It was in the beginning of October that, after travelling for six days, I found myself in the far-away backwoods skirting the shores of an arm of one of the great northern lakes, and on the iurther shore we could see that the forest fires were raging. We had seen and heard them blazing across the water for a day or two, and the air was full of smoke. Despite the fact of the water being between us, this was somewhat alarming, for the few Indians I met gave all sorts of contradictory reports as to the actual direction in which there were
forest fires. Our trail lay for the greater part tirrough woodland, all the wood being as dry as tinder, logs lying scattered about pell-mell in every direction, rendering the ise of the axe frequent to clear the track. We mere, we knew. in a veritable fire-trap should once the fire work round the end of the arm of the lake; but such was my desire for moose that I pushed on. Eventually my half-breed attendant and I managed with difficulty to get our Red River ox-cart across a deep creek or stream of good water, which we were very glad to find, beyond which we soon had the campfire burning in a spot which we carefully cleared all round of any brushwood likely to catch. This half-breed was a capital fellow, strong as a horse and perfectly tireless, an excellent cook, but no hunter, and together we were searching for a famous Indian moose hunter whom we knew to be somewhere out in those wilds. The next morning we could hear the crackling of the forest fires sounding nearer, and the air was so dark with smoke that a brace of wild duck that had lost their way flew against our little tent with a thud. Becoming alarmed, we pushed on rapidly, and breathed more freely when we had floundered through some very wet muskegs, after which, being out of the continuou; forest, we traversed small prairies and occasional belts of wood. Eventually, after the air had become clear of smoke. and when the crackling of the fires could be no longer heard, I came upon the Indians I was in search of. They were camped upon a grassy ridge overlooking a large marshy pond of very bad tasting water. They had several wigwams, crowds of ferocious Huskeydogs, as they call the Eskimo breed, some women and children, and enormous quautities of raw meat hanging up to dry on poles over wood fires. That Indian encampment was not a pleasant thing to approach, but I had to approach it, in spite of the smiells and the Huskey dogs. These brutes, which look like wolves, usually bite first, and think about it afterward. Fortunately for us the chief, whose name was Rainy Cloud, came out just in time from his wigwam, and he rained such showers, not clouds, of curses and blows combined
upon those savage brutes that they were compelled to give up their evident intentiou of making a meal of myself and my companion. Then I had to solemuly shake hauds with every filthy man and woman Indian in the band.
"Shade of Fenimore Cooper! what price the noble redskin now," did I exclaim while going through this terrible ordeal. But I survived it somehow. I put up my camp as far from the Indians as possible; but Rainy Cloud, with Waving Fine and Long Arrow, came over too, and did not depart until they had got much tea and sugar out of me. For the three succeeding days did Rainy Cloud escort me moose hunting. During these three days did I wander alternately through dry poplar woods where, even although wearing moose-skin moccasins, one had to step on tiptoe the whole time for fear of twigs crackling; through willow swamps, where numerous branches newly beaten off betokened the recent presence of moose; and then again through miles of prairies, shut in by circular belts of trees, like a gentleman's park surrounded by plantations. In these prairies the tracks of the moose and the places where they had been lying down were numerous, while in the long hay-like grass the roads made by the bears were frequently crossed. It was frightfully hot those early days in October, and often we had no water. To procure any water at all I had occasionally to take my hunting knife and cut out some sods in an almost dried up muskeg, then to waic for water to filter into the hole. When it had very slowly trickled in and filled the hole, Rainy Cloud and I would drink the yellow fluid thus obtained, after straining it through a handkerchief. It was usually very nasty, but I once got some delicious water from a muskeg which to look at was stagnant, with rotten vegetation.

We get no moose at all during those three days. It was always the same thing! As we tramped along, hour after hour, whenever we found a trail of any animal, Rainy Cloud, scarcely pausing to look at it, would know how old it was. With the exception of bears, of which there was plenty of fresh trail, he would always say "a week old, a
fortnight old." Only once did we find the trail of one moose, and a large one, too, to which he said " yesterday."
At last we gave it up, the Indian himself declaring that all the moose in that country were "nipoh;" that is, dead. He and his gang had evidently killed the country out before I got there.

Unfortunately for the white hunter there is no restriction as to hunting seasons for the redskin, but he himself must not begin to hunt moose before October. Very disheartened at having undergone so much toil in vain, I left that district, returned to the big lake, got a boat, and sailed upward of a hundred miles to the northward. I had taken with me a new hunter who knew that country, whose name was Singing Bird. Of all the unsociable, disagreeable Indians I ever had to do with, Singing Bird was the most disagreeable and the most taciturn. But he was a splendid hunter, and before we had been a week in the new country we very nearly had several moose. But the weather had become frosty and there was no wind. The consequence was, do all we could the twigs would crack under my moccasined feet whenever we were getting near one in the woods, after perhaps tracking him for hours in the prairies. On such occasions Singing Bird used to grunt out " Ugh-your fault!" as we would hear the huge animal crashing away within a few yards of us. And then without another word he would start another hunt after a new moose, for to follow one once disturbed was useless ; he would not stop for miles.
After a day or two's hunting in common, I began, in spite of Singing Bird's disagreeable ways, to have a great respect for his method of hunting. And he got a respect for me also when I found him out in a lie one day, when he got tired before I did. We had been following for miles the trail of a big bull moose and a cow, when suddenly Singing Bird said, "No use, yesterday's trail; go camp ncw." I merely looked at himi and said: "Singing Bird, did it freeze yesterday?" "No," said he, "this morning." Then I said, "Singing Bird, I saw where those two moose had broken ice." He saw that he was caught, and,
probably for the only time in his life, laughed. Then he said, "Let's ro on." But we did not get them that night.

Next day he found the trail of those moose ten miles from where we had seen them the night before. He did not follow it, but instantly started off at right angles. We walked five miles, across prairie and muskeg, till we came to a little wood. "Wait," he said. It was the only word he had uttered all day. When we had been waiting two long hours in silence, he pulled my sleeve. Far out on the prairie was that which made my heart thump as it never thumped before. Two black dots!-yes, two black dots-coming nearer. The two moose, by thunder! Nearer they came, and nenrer, till I could see the magnificent antlers of the bull distinctly as they stood
out against the frosty sky, and the female, being a little behind, he occasionally turned round and caressed her. Then they came on again, straight towards us, biting off the tops of a willow bush here and there.

At lasi they were within fifty-no, forty-yards of us. Every nerve in my body trembled as I raised my Wincuester and aimed at the bull. Bang! He is down on his knees-dead? No! He is up, and coming straight at us with a bellowing cry. Bang ! again, as he scems about to rush past or over us. With a terrible, awful crash that huge mass of animate flesh topples right over into the bushes alongside us, nearly crushing us in his fall. The edge of his antlers scraped my cap off! But I had killed my first moose!

## Brome Lake.

## BY WALTER GREAVES.

My impressions of Brome Lake are that it must be an excellent sheet of water for large bass (Micropterns salmoides), and if one happened to be there when they ware taking the fly well, I am sure he would have grand sport.

I spent three weeks at Knowlton during July and August last, and, although I uften went out fishing, I was not fortumate enough to strike any of the large ones. During my visit they were not taking well, and I did not see or hear of any being caught with either fly or bait. A Mr. Robinson, of Montreal, landed one of $61 / 2$ pounds with a minnow the day before I arrived, I believe. One morning, between io and in o'clock, I landed twenty with two of my "Massassaga" flies. I then returned home satisfied, as any sportsman would doubtlesshavedone. Several times I qaught two at a cast, and I could have caught hundreds, I believe,
if I had tried. They were, however, small bass of about $11 / 2$ pounds each.

Good, dry row boats can be secured from Jos. Benoit and Mr. Sturtevant. I patronized the former and found him and his assistants civil and obliging, and, from what I heard, the same may be said of Mr. Sturtevant.
I aun not able to arrive at any definite conclusion as to why the large bass were not taking during my stay, but think it may have been owing to the cold weather and heavy winds and rain. I noticed that the water was nearly always discolored, and this, I fancy, was sufficient to prevent the fish rising well to the fly. It is my desire to pay a visit to Brome Lake when the fish are taking well and if I do I hope I may be able to give you a good account of the fly fishing there. I am anxious to get one of the sixpounders on a ligint rod with a fly.

## Beyond the Forest.

BY GODFREY PEEBLES.

So comparatively little is known of the vast extent and resources of Canada outside the few whose business it is to be posted that the most virgin field of sport in the known world is practically an unknown quantity to any but the few. Every province in the Dominion furnishes its quota, but for sheer abundance and variety of game and grandeur of scenery, Canada's Great North Land is without all doubt beyond compare.

To the ordinary individual it is a place pigeon-holed in his memory chamber as a land of much gold and terrible cold, but he might to good advantage to himself file away another piece of knowledge in this storehouse of his. Truly it is a land of gold ; a laud where the mercury at times drops into the bulb, for nature in forming this immense region-how immense is hardly comprehended by any -has been in no wise niggardly. Immense wealth is there for the prospector, spells of intensely severe weather for the hardy, and, when old Sol gets his work in, warmth enough for the coldest blooded. But it is when the question of game is considered that the immensity of this wonderful Northland comes promptly to the front and stands out in bold relief. It is the immense storehouse of all the known varieties of American big and small game, and doubtless many species which have not yet heen discovered. Here one has the powerful grizzly, the wood buffalo, the majestic moose, the nomadic caribou, the rare musk ox, the black fox, whose pelt is worth from three to four hundred dollars, etc., etc. I might go on ad infinitum and name the fur bearing creatures of this part of the Dominion, but that would take up more space than is at my disposal. It is the lome by choice of the keen-eyed wild goose, whose honk-honk-honk is a famjiliar part of the life of its myriad marshes; the duck in all its varieties is there ; its waters are teeming with fish of all kinds -but why go on, its dimensions are so stupendous and resources so limitless,
that language fails in an endeavor to put it in black and white.

It is a land of contrasts-when it is dark it is all dark, and when light it is all light. In the winter seaso: the sun is absent and in the summer always present. Nature seems to have excelled herself in providing extremes. Here for hundreds of miles is jumbled together in wild confusion, rocky masses sufficient to pave the cities of the two hemispheres.

Again, as far as the eye can reach the grey barren stretches into nothingness where sky and horizon meet. Man is better away during the winter months, but for the balance of the year there spreads out before him such a vista of beauty that the eye is stalled-in every direction, the hillside and valley is carpeted with the prettiest of flowers which apparently spring up in a single day, so powerful is the influence of the long day of sunshine, and one may not walk in the month of June without at exch step crushing quantities of wild strawberries which grow in profusion and to a very large size.

In the grandeur of its mountain and water scenery it is doubtful if this Northland is anywhere excelled; its mountains rise in their great majesty to the skies and down their rugged slopes in leaps and bounds, rushes the mighty flow of waters caused by the melting of the eternal snows on their towering peaks, and it is no extraordinary sight to see great bodies of water plunging down in white spumey splendor, a sheer depth of several hundred feet into the canyon below.

The hunter and frontiersman is always the advance guard of advancing civilization and I doubt these great solitudes being leit alone any more than any other region. Manitoba and the North West Territories but a short thirty years ago were noted for their great cold and vast herds of buffalo, and fit only for the trapper and Indian, but in that short
period what a change has come over this once dreary solitude; it is now peopled by a multitude who are rapidly growing wealthy in this once "Far West." History has a way of repeating itself, and doubtless the restless white,
sighing for other worlds to conquer, will slop over into this bevond, for that is all this Northland is. The day, however, when the hunter will find any difficulty in making good bags in this his paradise, is yet a long way off.

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## - Modern Rifles.

## BY ST. CROIX.

After all, the only true and certain test of the value of a sporting weapon is a trial upon game, so perhaps it may interest all excepting the old " mossbacks " to learn about the rifles Canadian hunters of big game are using. Of course the licheniferous ones don't care to know, because they find themselves unable to kill game with modern rifles, and refuse to believe that younger men (with keener eyesight perhaps) are doing so day by day.

During the course of a little journey across the Dominion, taken recently, I found the deer hunters of the Sudbury district using the $30-40$ or $30-30$ as a rule, though a small percentage prefer the $38-56$. From Sadbury to Lake Superior the same calibers are chosen, and most, if not all, the 45-90 and 45-70 in use are old guns that their owners wou's part with at a sacrifice.

In the mountains the demand is for $30.40,303$ or 303 Savage. The $30-30$ is unsurpassed for deer and black bear, but the professionals won't trust it for grizzly.

The Indians still stick to the 44 Winchester, but they not infrequently pay a heavy penalty for using this light handy rifle. Only a few weeks ago one of the best Okanagan humers was killed at Sicamous by a silver tip, entirely owing to the miserable inefficiency of his rifle. The tragedy happened within a mile of Sicamous Junction, and ás near as could be ascertained the facts of the encounter were as follows : Tollomie, an experienced man of some fifty odd years, had come down the Shuswap Lake in his canoe witi his klootchman, and finding fresh deer tracks on the willowy bench where
stand the deserted ruins of the old toin of pre-railroad days, landed to get some meat.
The growth was thick and he was lost to sight almost immediately. Not long afterward the woman heind two shots in rapid succession, and after a short interval a third. Tollomie not returning, his better half went to find him, and scon came upon the unfortunate fellow lying in a pool of blood, one hand almost gnawed off, both eyes out, and his scalp hanging over $h{ }^{\circ}$ : face.

The poor, thucky woman helped him to the canoe and paddled to Sicamous. Next day he was sent by train to Vernon, forty-two miles distant, and got into the doctor's hands-but after lingering for almost a week he died through blood poisoning.

His riffe was jammed when found, and it is thought the bear after receiving three shots, felled him by one savage swipe while the old fellow was trying to get another shell into the chamber. The cartridges had been reloaded with poor powder, and the shell that jammed was considerably longer than a factory cartridge owing to the bullet being inserted but a short distance so as to allow of a heavier charge.

All the white hunters who heard of the adventure were unanimous in saying it could not have happened had Tollomie had a $30-40$, a 303 or a Savage in his liand. Three shots from any of these powerful rifles, at short range, would have talken the fight out of the worst silver tip in British Columbia. But the Indian is poor, and 44 caliber cartridges are cheap, so Bruin, in the future as in the past. will not always die mavenged.

## Practical Forestry.*

"I am of the opinion that a practical demonstration of re-foresting our dennded timber lands would be of immense benefit to this country. We have often been told of late years that there is greater profit in caring for and reforesting timber land than there is in clearing and cultivating the said land This, I believe, is true, but there are so few of our people who know how to begin or what variety of timber to select or where to get it There are thonsands of acres of such lands lying idle and useless all over this Province that if re-foresting were undertaken would eventually largely increase the value of these lands and would solve the problem of future supply. I an not aware that the Government has clone anything in the direction of re-foresting. If I am right in this perliaps our Association would consider the advisability of taking up the matter with the (iovernment, with the view of establishing experimental re-foresting faims at various points in the Dominion, pa.ticularly in the Province of Ontario.
"Take for instance hardwood lands, where the soil is light and very stony; the lumberman goes in and removes all sawlog material from a bloik of such land. it becomes practically valueless, being too rough for cultivation. It is such lands as these I would like to see an effort made to turn to some account."-J. E. Murphy, Haworth Station, Ont.

This extract brings up a very important question and one which is worthy of the fullest consideration. Forestry is practical as well as theoretical. Practical forestry in Canada, until recent years, meant cutting off the virgin forest and devoting it to useful purposes, without consideration of any succeeding crop. The virgin forest has become so thimed that the blue sky begins to appear through the intervals, giving warning of the future, and much of the land which produced good timber cannot be made to produce good crops of anything else. The last report of the Director of Forestry for Ontario shows that in the forty-three older counties there is an are: estimated at $3.376,000$ acres of waste land, cleared of its timber and made of no use whatever. The practical question therefore now is, how is timber reproduction to be secured, and in what way are such waste lands to be utilized ? The wisdom that will solve the problem must be based on a knowledge. first. of the business conditions, and secondly, of the forest conditions. A wise foresight, based on practical know-
ledge of the lumber business, is a necessity to decide what crop is to be encouraged for the somewhat distant reaping time. The agriculturist has sometimes made mistakes in selecting his crops with only the interval of a few months between seeding and harvest. How much care therefore is required in making a forecast which must look forward to a greater or less number of years for its justification. In Germany, extensive plantings of beech were made in the early days when there was a great demand for such trees for railway ties, but the substitution of metal for wooden ties belied the expectations of the foresters, and it was found that it would have been better to have gone less extensively into beech planting.

As far as soft woods are concerned, it seems clear that the most valuable lumber trees are, for a large part of Ontario and Quebec, the white pine; for Eastern Quebec, the Maritime Provinces and Manitoba and North West Territories, the spruce. But when it comes to a choice between these and hardwoods, or among hardwoods themselves, the question is more complicated. His Honor Sir Henry Joly is a strong believer in, and advocate of the planting of walnut, and some time ago, in Rod and Gun, Mr. Thomas Conant, of Oshawa, gave an account of his successful experiments with this tree. The tree to be planted or encouraged must be selected on a practical k:nowledge of the usefulness and value of the timber, and on a careful consideration of the future prospects in the market.

But then comes in the other side of the questicn. Certain trees are best commercially, but which will give the best results in the conditions in which they are to grow and how are they to be grown so as to produce the best timber ? Here the scientific knowledge of the forester must be brought to bear. And in this more even than in the business aspect, the assistance of the Government is required, for the necessary information as. to the sylvicultura ${ }^{1}$ conditions, rates of growth, protection irom injurious influences, etc., can only be properly

[^0]collated by the Govermment. Even a scientifically trained forester would require some information in regard to local conditions, and therefore it is desirable that the problem should be given attention as soon as possible so that the earlier will those desiring to go into timber culture be put in a position to direct their efforts most wisely.

In Ontario, the Government derives so much of its revenue from the white pine that this tree has been given some special study, and in the Timagami Reserve, a first step has been taten toward the management of a mature forest, while in the Reverve in Frontenac and Addington connties, and in the Sibley Reserve, north of Lake Superior, burnt over and denuded lands growing up with a new stand will be dealt with. Harwood lands are not so largely public lands, nor are they a source of direct revenue to the state, so that the Government has not felt the demand so urgent to take hold of them, and there may be some uncertainty as to how far the country would justify them in so doing, for every such advance means increased expenditure. In the United States, the Bureau of Forestry makes its co-operative offer apply to the manage-
ment of tracts for producing lumber, and advantage of it has been taken by many private owners, but this means the trainin:g and employment of a staff of experts.

With so much land literally going to waste, is there not, however, just:fication for asking that the subjeci be given thorough consideration?
fit the annual meeting of the Canadia: Forestry Association a paper was submitted by Mr. W. N. Hutt, which is probably the first attempt to deal with the question of the rational management of wood lots in Ontario, and although the paper referred mainly to the small wood lot of the farmer, still the principles laid down are those which must be considered in dealing with larger areas, and if steps were taken to have a practical demonstration on the lines suggested so clearly and ably by Mr. Hutt, the problem of our waste lands would be adranced much nearer to a solution. Although it is a matter of special moment to the agricultural population, apparently little or no attention has been given to this matter even by the institutions whose special business it is to do experimental work for their benefit, at least in Eastern Canada.

Dr. A. Harold Unwin, who has kindly contributed the article on "European Forestry,' published in this issue, is one of the European members of the Canadian Forestry Association. He is an Englishman, his father being a member of the well-known publishing house of T. Fisher Unwin \& Co., London. Eng., but he has for the last few years been making a special study of forestry in Germany. He has done practical forest work in the Harz Momntains in Prussia and Bohemia, and completed a course in scientific forestry at the Royal Saxomian Forest Academy in Tharandt, Bavaria. He has recently obtained from the University of Munich the degree of Doctor in the Faculty of Economy.

The interest that is being aroused in forestry is shown by the resolution passed
at the recent meeting of the Maritime Board of Trade held at Sydney. It exemplifies the fact also that it is a matter of practical business importance since it was considered by the business men of the Maritime Province of sufficient moment to be dealt with by a special resolution. The resolution is as follows :
"Whereas the subject of forestry has in recent years engaged the atteution of the governnents of many countries of the world, and some of the provincial governments of Canada have taken action looking to the protection and care of their timber reserves ; therefore be it resolved that, in the opinion of this Board, the time has arrived when laws should be made for the protection of the timber limits of the Maritime Provinces in the direction of securing, as iar as possible, immunity frol., the ravages of fire, for a more carefill and scientific practice as regards the cutting of timber, and also, as far as may be practicable, the encouragement of the planting of forests."


faming a fon. Dewharats Islands.


Thie Basswood.
One of the most useful trees of the Canadian forest.



## The Basswood.*

Here's a scng for thee-of the linden tree, A song of the silken lime;
There is no other tree so pleaseth me, No other so fit for rhyme.
When I was a boy, it was all my joy To rest in the scented sliade.
When the sun was high, and the river nigh A musical murruur made.
When, floating along, like a winged sung, The traveller bee would stop,
And chose for his bower the lime-tree flower, And drink, to the last sweet drop.
How many have shared that pleasure with Barry Cernwall! As we think of these rare days in June when the first heat of summer is making itself felt, a few white clouds floating lazily over the clear blue sky, with the first suggestion of the summer haze dimming the landscape and the drowsy murmuring of the bees overhead, with the sweet scent of the lime flowers pervading the atmosphere and all the senses drinking in the sweet harmsuny of the scene,-who could resist its entrancingly drowsy attraction, or help feel arising within him the longing that he might be a boy again, if but for a little while, to escape from the pressure of the Forld's care and its jarring noises, and in the peace and beauty and sweetness of such a scene, to feel the discordant notes hushed and the harmony of nature spreading its soothing influence over the nerve and brain and heart.

The Basswovd, or American Lime or Linden, whether in blossom or not, is an easily distinguished tree. Its large leaves, four or five inches or more in width, are heart-shaped and the edges are prominently serrate. On fresh shoots or young trees, the leaves often reach a very much larger size. The veins in the leaf are very distinct, spreading from a large central vein and branching before they reach the margin. The manner in which the flowers are produced is peculiar. Instead of the stem of the bunch of drooping, cream-colored, sweetscented flowers being inserted directly on an ordinary twig, it is placed in the centre of a strap-shaped bract three or
four inches long and about three-fourths of an inch in width. The sweet odor of the honey-laden flowers is a great attraction to bees, and this tree is a very suitable one to plant where honey production is desired. The fruit is a small round nut, which is edible, but so small that it is of little interest to anyone but the small boy, by whom it has been sometimes designated " monkey nut," though this is purely a local nanie. It may be seen scattered over the snow under these trees in winter and it is often the second year before it germinates.

The scientific name Tilia is the old classical designation for the European tree of this genus, and this word also meant the inner bark or bast of a tree. Which was the primary meaning it is perhaps impossible to say, but the ancients made use of the inner bark for different economic purposes, so that the name may have been transferred trom what was considered the most useful part to the tree itself, or, being used to designate the bast of this tree, may have extended its meaning to include all others. To trace the etymology of such words often leads back to very interesting bits of history.

Linden comes through the AngloSaxon, and Lime is apparently a corruption of line or lind from the same source. Teil-tree, a name also used in Europe, is from Tilia, tinrough the Frencla.

The Basswood was a useful tree to the early settlers. According to Dr. Canniff, it was largely used by them in Ontario in constructing their log cabins. The logs were flattened somewhat on opposite sides and were laid with the flat sides together, the ends being notched so that the logs at the ends and sides of the hut would fit into one another and hold solidly. The interstices between the logs were filled up with moss and clay. If a peaked or "cob" roof was desired, it was made by cutting the end logs into successively shorter lengths, and the roof was completed by being covered with bark, or

[^1]later by rough wooden tiles, the whole of the woik being done with the axe.

The roofs were sometimes made of basswood logs, hollowed out and placed over one another, with the round and hollowed sides turned upward alternately, and fitting into one another like tiles, forming a covering that was entirely impervious to rain. The troughs used to catch the sap in making maple sugar were also hollowed out from basswood. The inner bark was used by the Indians for tying their birch bark baskets together and for other similar purposes.

This inner bark is of a mucilaginous nature when masticated, and has served the small boy as a substitute for "slipp'ry ellum" when the latter was not conveniently to be obtained.

When the wood is seasoned quickly it is very white, and, being easily worked and split, is used for a great many pur-
poses where a light wood is required, such as carriage panels, boxes and woodenware. It will not warp if well seasoned and not exposed, and is therefore used for sounding boards for pianos. As a veneer, it is used for chair seats, three ply of the veneer being used, and for fruit baskets, etc.

Its distribution in Canada is from New Brunswick as far West as Brandon in Manitoba, but it reaches its best development in Ontario, where the supply ior commercial purposes is mainly obtained, and where it sometimes reaches three feet in diameter and one hundred feet in height. In Eastern Manitoba this tree might be successfully planted, and as it is both ornamental and useful in many ways, it is one that it would be well to experiment with. It is particularly desirable where bees are kept, as the flowers are great honey producers.

## European Forestry of the Present.

A. HAROLD UNWIN, D. OEC., THARANDT, BAVARIA.

Europe being economically not homogeneous, naturally shows this also in its forest administration. Even in this the 20th century, there are forests in old Europe which can not be cut or used, technically because the timber is valueless or cannot be transported to the nearest railway station. Such parts of the Continent are Northern Russia and Finland, some of the monntainous parts of Central Sweden, Gaiicia and Serria. Here one may find forest ranges, that is to say areas under one educated foresist with assistants, such as in Northern Russia, of two million acres in extent. The areas to be cut are sold hy auction, similar to those in Canada. This is the one extreme in forest management : the other, that of "intense" management, one finds in England, France, Saxony and many other parts of Germany.

Here every piece of forest produce can be sold, and instead of selling the use of the area per year, govermment forest
officers have the timber cut down and then sell it by auction, thus getting a higher price for it. In this case, the ranges under one educated forester are usually four or five thousand acres in extent, and are carefully divided so as to insure regular cutting, etc. Of course, between these two extremes one gets the most iaried transition stages $m:=$ th ranges of different sizes, c.g., the largest in Germany are between 25,000 and 35.000 acres in extent.

The financial effect of this arrangement is raried. In Russia, c.g. on the average. including protection forests, seven cents per acre a year clear profit is made. This clearly shows that even in a country like Russia, with full protection against fire a forest brings in profit, and under government management, too. This is, of course, a very small proît, but with intenser management, where all timber can be sold, it gradually rises, and in the best-managed spruce forests of Saxony
is five dollars per acre per year.* The capital represented pays at that profit at the rate of $21 / 2$ per cent., which, considering the useful indirect effects of the forests, is very satisfactory.

In the above, the size of the ranges was made a very prominent point, and indeed it is the sine qua non for forest management and protection, especially against fire. Of course, the more valuable the forest the smaller the range, and the more careful must be the protection of it against fire. The European forest laws against fire would be useless without the foresters, etc., demanding as they do that the whole masculine population of the district turn out with implements in case of fire. This is the case in Russia, Finland, and in some rural parts of Germany.

In one part they have actually brought the telephone into use, and all foresters' houses are connected so that they can be at once called.

Another point which is connected with the size of the ranges is the purely forest techmical management of the forest. If a forest is once put under one man's management, cutting can be so arranged that the trees can naturally reproduce themselves at the proper time, and in other cases, where this method is too slow, planting takes place.

In connection with Government forest reserves, great stress has been laid on the altitude of the forests, e. g., Austria is in the unlucky position of having 43 per cent. of its state forests between an altitude of $3200-5000$ feet. That is to say, the trees can scarcely be grown at a

[^2]profit. In other states, the forests are distributed better, for instance Russia, where 50 per cent. are situated on flat land (the plains), 25 frr cent. on hilly land, and 25 per cent. on mountainous land. This is of couse very advantageous. Of course it is best for the general welfare of the country if the Government owns most mountain forests, but at the same time it must secure large areas on lower-lying ground so as to insure a good profit from the undertaking for the yearly budget; at least this has been the experience in Europe and Asia, especially India and Japan.

The above all refers to State forests, but forest management is practically the same in the large private forests such as those of the nobles, and those of the towns such as Görlitz with, roughly, 50,000 acres. Only the smallest woods of a few acres which the peasants have, serve other objects beside timber production, such as pasturage for pigs, litter for stables. etc., and so demand a different form of management.

Summing everything up, one may say that forest management and the principles of forestry remain the same all the world over; the only difference existing is in their conversion into practice. That depends upon the value of a timber tree for any respective people of a respective country. The most brilliant example of this is in the different uses of white pine in different countries. In America it has its special use as timber, whereas in Europe, where it has long been introduced, it is chiefly grown on account of its sylvicultural qualities, such as a nurse for tender conifers.

The railway companies report a very large number of enquiries from intending sportsmen, and it is likely many of these will vinit Canada this year. Among the early hunters who passed through Montreal were Mr. F. H. Daniels and party of Worcester, Mass., who went up
beyond the height of land in the first part of September to the district in Quebec Province immediately south of Lake Abittibi, which is reported to be an excellent ground for both moose and carrbou. The open season in that district commenced September.

## About the Birds of the Bush.

BY C. C. FARR.

One of the hardest things for a busy man to do is to devote sufficient time to study the habits of the fauna of the northern bush.

As a boy, I took pride in knowing the names, the habits, and the habitat of every animal that drew breath in England, especially the birds. I knew their nests and where to look for them, the color of their eggs, and the sound of their voices, and I looked upon those who did not, as Cockneys, boys who would expect to have fresh kidney every day from one sheep.

I regret to-day that I am unable to classify the birds that I meet in the bush, with the feathered friends of my boyhood ; that is, to assign to the various species their proper place in relation to those that I knew. In the robin, of course, I recognize the thrush, and in the blackbird, an innocent relative of the mischievous starling; but the finches, the warblers, the buntings, and even the wrens I have failed to identify, hence I have gone to the Indian and have tried to gain from him the knowledge of ornithology that I lack.

Now the Indian, though a close observer of nature, is lamentably deficient in such knowledge. Ask him anything regarding the habits of an animal that figures in his bill of fare and he can supply interesting and valuable information. He knows how to catch it, and all its peculiarities. But ask him questions regarding some small bird that he does not eat. He may know it by sight, as a red bird, yellow bird, blue bird, etc., all of which he classes under the generic term "Pen-ay-Sheesh" (little bird), but he is probably more ignorant of its habits than you are with a knowledge of allied species in other lands. His ornithological investigations are allied to the pot, and he has a wondering contempt for the fool that can interest himself in something that he camot eat.

However, a bird of size appreals to him, and even if he does not care to eat it, he knows quite a bit about its habits. I
once induced an Indian to give me a list of the hewks, or, more properly speaking, the falcons and hawks. The following is practically a transcription of my notes:

Ken-u (Eagle). -The largest of all birds, buiids its nest on the face of a cliff, usually in inaccessible places. Not common, Indians rarely shoot them.
Pcech-e-Keeg-wan-ay (Fish hawk).Nasty to taste.
Mec-kiss-ay.-A large hawk that flies very high, circling like the eagle. Utters a prolcaged shrill cry, almost a whistle.
Notch-ash-quas-ie.-A large grey hawk. Flies low, eats mice and snow birds.
Shagzet-a-mo.-Mottled brown, large hawl, that flies rather low; has a head like an owl, eats frogs and snakes, will attack hens. Has a broad band of white across its tail.
$P_{e} p^{\prime} e e$, gzvish. - Rather smaller, eats birds and mice, very hard on hens.

Tchehay-sic.-A light colored hawk, feeds on frogs.

Miskway-na-naysic.-A dark brown, fair sized hawk. Frequents marshy places and rivers, eats frogs and suakes.

Pe-boon-is-ic.-A rather larger hawk. The only one of its kind that winters in these northern latitudes. Feeds on partridges, and is dangerous to hens.

Kish-kay-kayke.-A kind of a kestrel. All these kaykaykes are lighter built birds, in fact probably they are the true hawks, all the others being falcons.
Kaykayke.-A smaller kaykayke.
Kay-kay-konse. - Small kaykayke. The termination "onse" being diminutive. All these kaykaykes build their nests close to water, and usually in the face of an escarpment.

They apparently need constant bathing to keep them healthy. This familiarity with water has evolved in them a taste for fish. They hunt small birds and skim over the surface of meadows as the swallows do.

Their tails are ratiner long for the size of bird, especially so in the kishkaykayke.

This ends the list of hawks as I have it, I do not claim for it entire accuracy. It is like my list of ducks, somewhat incomplete, but it should give a mucleus to some naturalist with more time at his disposal than I have, on which to build a more perfect list.

The description of birds and their habits, as far as it goes, is correct enough, but there are probably more species to be described than I have met, or the Indians have told me about.

The kenu, or eagle, builds here. In fact within eight or nine miles of where I am there is a rock called Ken-u-wa-bik, Eagle Rock. Their nests are built in places usually inaccessible, but I have seen young eagles in captivity, and beyond the fact that they were eagles, and had a hundred horse power appetite, they were not interesting creatures and somewhat uncanny to look upon.

I thought when I witnessed their voracity that it was a lucky thing that they do not increase and multiply at a rapid rate, for if they did our game would soon become extinct. I wonder why they do not become more plentiful, for nothing seems to eat them. The Indians very seldom shoot them, and yet they are decidedly a "rara avis." Nature must have evolved some check upon them, and I often wonder what it is.

The notch-ash-quas-ie does not build here, but follows the snowbirds north.

The shagwetamo, tekehaysie, and the miskwaynanaysie are all frog eaters. It is strange how many things prey on the frog. It is the amphibious rabbit, a staple of food for most of the predacious animals. Even the crow fattens itself and its young on frogs, and it is well that such is the case, otherwise we should be overrun with frogs, as were the Egyptians of old.

The ninnow is the water rabbit and feeds the fishes. It is wonderful to watch and see how nature adjusts the balance. An over supply of any particular creature seems to bring with it an increased demand and vice versa.

The world is like a huge machine, composed of a multitude of different parts all really dependent one upon another yet each acting for itself, unconsciously producing a nicely balanced, automatic whole.

But I must finish my tale of the hawks. The pi-boon-is-ie is a very interesting specimen. It is practically a winged weasel, and hunts down the partridge as the weasel hunts the rabbit. The partridge is first flushed, and the piboonisie follows it to the same tree. Again the partridge flies, so does piboonisie, and soon the chase becomes in deadly earnest. Every flight the partridge takes is imitated by its foe, until the bird succumbs to fatigue and fright, an easy prey to its pursuer. This hawk is very bold in its attacks upon hens, and will hardly leave its prey even on the close approach of man.

There is one bird of carnivorous and predacious habits and of unsavory reputation that I have omitted, though it is not of the genus falconidee. It is called, by the Indians, wendigo penaysie, devil bird, "penaysie" being a generic term for "bird."

I fancy that, true to the utilitarian habits of the Indian, he has placed foremost in his list of birds, the one that, to him, affords the most reliable food supply, namely, the partridge, for the Indian word for partridge is penay (the bird) and all other birds are hence called " penaysie."

The partridge to the Indian is as the porcupine to the white man, that is, a sure and certain meal in case of starvation, for the Indian can kill a partridge without a gun. Besides hitting it with a stone, he has a plan of sticking a snare on the end of a long pole. This snare he sets open by means of a little cleft in the stick, then slowly and cantiously he pushes the snare towards the partridge, which is craning its neck, and watching its enemy very intently. The silly thing actually sticks its head through the noose, provided it is held at the right angle, and a smart jerk brings it down fluttering to the ground. In the spring, when the male is drumming forth its love song, the Indians set snares on the logs where drummers drum, and the foolish birds, if the snare is half decently set, are sure to be caught. But I have digressed and am in danger of making too much of a jumble of my facts. I must return to my wendigo penaysie. This is the great northern shrike, and its habits are indeed diabolical. It passes
these latitudes early in spring and late in the fall. The reason why it has obtained its unsavory appellation is on account of its peculiar method of attracting its prey. It sits in a thick bush or tree and warbles forth imocent lays in bird language. One would imagine to hear it, that a flock of little songsters were twittering and singing in a manner most joyous and peculiar to them. The innocent little birds imagine the same thing, and congregate upon the bush in happy anticipation of a regular bird pow wow. This is Mr. Shrike's opportunity.

He seizes one of the poor, deluded ones and bears it off screaming, in anticipation of its fate.

Whether the fact of falling into the hands or claws of this feathered monster is more dreadful than of others of like habits, or whether its mode of despatching its victim is slower and more cruel. I know not, but I have seen it engaged in its nefarious practices and I know that the screams of the poor little wretches were heart-breaking, and I thought that the Indian was right. It is indeed a devil bird.

## Mrese cosposix

To the Editor of Rod and Gun in Canada :
A party of tourists travelling in the Timagami country had an unfortmate experience the other clay. They had camped for the night on a point on Boyn's Lake and, on leating in the morning, put out the fire they had used for cooking, but, unlackily, one of the Indian guides had built another fire a little way off, which was not properly extinguished, and it spread and burnt over about two acres. Fortunately the fire rangers were on hand and prevented the fire from doing any further damage. The tourists were followed up and fined $\$ 25.00$ for the carelessness of the guide, which is rather hard on them, but just, as the guide is the paid servant of the tourist and the latter is really the responsible party.

There is always a risk, in a dry time, of the camper starting a fire that will do millions of dollars worth of damage, but if the head of the party will remember to insist on the guides properly putting out the fire when leaving a camping ground, there should be no fear of damage and the unfortunate experience of these people will be avoided.
M.

To the Editor of Rod and Gun in Canada:
I hope to get away for my anmal moose hunt, in the early part of October, in the wilds of Northeris Quebee, and having suffered quite a lot last year from wet and cold (we had snow and rain three quarters of the time) I am providing myself with one or two articles new to me-first, I have the lightest waterproof-wall tent for the size I cau get, made of a combined silk-cotton material which is guaranteed to shed more water than the proverbial duck's back. It will have a stove pipe hole on the side near the front, with a light metal collar to protect from pipe heat-ridge pole will protect ontside so as to allow the crotch uprights to go outside. I have had enough worry with the inside arrangements to last me. There will be a folding camp stove of shect-iron, 20 incles $x$ 12 inches $\times 12$ inches, weight 5 lus. 5 ors.: two lengths nesting and oue elbow of 3 inch pipe, weight 2 lbs. $3 \frac{1}{2}$ ors.; wire gauze spark
arrester. Stove has no bottom, sides rest on ground, fire to be built on ground, thus saving weight of stove bottom and trouble of covering it with one or two inches of sand to prevent burning through. My trousers and coat of ordinary cloth have been pat through the alumsugar of lead waterproof scheme.
I don't mind being wet occasionally, but a steady water diet is disheartening if thereare no means of drying every three or four days. A canvas tent weighing 20 pounds will weigh at least 40 pounds wet, and it always seems a hardship, and fills me with disgust to portage 20 Ibs. of water on one's back when there is water to spare at each end of the portage and more coming down in bucketsful from the clouds.
Apropos of camping equipment, if these lines meet the eyes of the manufacturers of the Kenwood sleeping bags, I hope they will profit by them and adopt a dark brown canvas cover instead of the pretty grey their outside 'rag is, or was, when I bought mine some years agoman, oil, etc., soon makes the grey look very bad, whereas the dark brown may be as dirty as you please but it lorks fairly decent.
You may hear from me later on as to how I got on this trip.
montresat.

To the Editor of Ron and Gun in Canada :
There have been no less than four cases known this summer of moose being killed out of season on the Timagani Reserve, and the fire rangers are trying to locate the offenders. Doubtless there are numerous cases where the man belind the gun has held his hand-and all honor to him when he does so.-but those who are guilty of breaking the game laws must understand that they do so at their peril. Even if they are not caught this year they should remember that the foot of justice is sure, if halting. It is a terrible waste of good material to kill a big moose, take one meal off it, and allow the remainder to rot in the wilderness; and not only that, but to defile the spot where it is slain with the odor and pestilential bacteria that emanate from the decaying body.

HAMII:YBURy.

## Recent Bench Shows.

BY D. TAYIOR.

The dog show held in connection with Toronto Industrial Exhibition, which can lay some claim to be the principal event of the kind in Canada, was this year an undoubted success. The entries exceeded last year's by over 150, a happy result no doubt attributable to an entire change in the judges and more particularly to the presence of Mr. George Raper, of England, whose reputation as a canine expert is world-wide, also to the active personal interest of Mr. George Gooderham, chairman, and his committee, composed of Messrs. John G. Kent, W. A. Littlejohn, J. J. Ward, E. Strachan Cox and R. J. Score. Mr. Kent acted as ring steward for Mr. Raper, and his prompt service rendered that gentleman's onerous task of judging the whole of the show, with the exception of sporting spaniels and Irish terriers, a comparatively easy one. Mr. H. Parker Thomas judged the spaniels, and was as usual thoroughly conscientious in his work. Mr. Charles W. Rodman, Jr., had a comparatively easy task in judging Irish terriers.

Another change to be noted was the substitution of Mr. Fred W. Jacobi as secretary and superintendent in place of Mr. W. P. Fraser. Mr. Fraser had so long and so acceptably filled the dual position that some apprehension was felt at his unavoidable retirement, but the conduct of the show proved that in Mr. Jacobi the directors have found a man to fill his shoes. Things ran as smoothly as ever they did, the building was bright and clean, with an entire absence of the umpleasant odors which are sometimes the accompaniment of a dog show. Visitors were cordially welcomed and courteously treated, and, indeed, every one had a good word to say about the new superintendent.
In regard to the exhibit of dogs it may be said that taken all round, they were of a very superior quality, although in some breeds the entries were not numerous. St. Bernards were a good
lot and fairly ummerous. Bayview Kennels won with Col. Steele from novice dogs and bitches upwards to wimers, the special for the best St. Bernard in the show going to a smooth, Duke of Watford, whose massive head, sound body and limbs, entitled him to the honor. Sir Hereward II was a close second to Col. Steele in all the rough classes, reversing the Ottawa decision, and beating Uncle Homer. He is a dog with a fine head, good front and body and plenty of bone but lacks in development behind. It was noticed that he was deficient in action in the ring, a fault unusual with him. The bitch classes were not quite so good. Zantha was an easy first, the second prize being withheld and the third given to Princeton Belle, a massive bitch with extremely short legs.
Bloodhounds had only two entries and Newfoundlands were not up to the mark; Great Danes were fairly good, the winner, Mercedes, being much the best of the bunch. Russian Wolfhoumds, what there were of them, were quite representative, the well-known dog, Kubelik, from the Terra Cotta Kemels, taking premier place; Kaina, a beautiful bitch from the same kennels, second, and a Montreal dog, St. Ivans, being a respectable third. In deerhounds, the best was Ormonde, a recent importation. In greyhounds Nellie Coulter, set down in good condition, won handsomely over Ben Lewis' Lansdowne Royal. English foxhounds had only two entries, the New York and Montreal wimer (Hector) being easily first.
American foxhounds were quite numerous, the majority in point of size and appearance being closely allied to the English breed. The well-known dog Hanks Gimerack was first over a very even lot in the open class. As a rule, the bitches showed more quality than the dogs; Carman, a beautiful model and frequent winner, being first, with Gregory's Music, another five model, but not quite in such good condition, being a
close runner up. There were two harriers shown, Hank's Huntsman and Ranger, which were placed as written.

Pointers were an exceptionally good lot and would have done credit to any show. In novice dogs and bitches, Young Lynn won handily from Lady Simcoe, and in the open class Meteor Dot II. was first, but in winners' class he had to give place to the young dog, first in novice, a youngster of good quality and undeniable style.

Of English setters there was a good entry, twenty-seven in all facing the judge. Ulverstone Rap, a very nice type of setter, with good head and coat, plenty of bone and great depth of chest. He was not in the best of condition from much travelling lately but still easily led all through. Rock Surrey, a stylish dog and good mover was second and reserve in winners. In bitches, the wellknown Pera and Dell, a Canadian bred dog, were first and second respectively.

Irish setters was one of the prominent features of the show, both in point of numbers and quality. In novice dogs, Messrs. Coulson \& Ward won with Shamrock Bobs, a sound dog for his weight. In limit and open St. Elvan, in rather poor condition, won. He is a typical Irish setter of the right color. The bitches were of rare good quality, Nora Shannon beating St. Lambert Kathleen in novice class, althotigh the verdict might have been reversed as the latter though quite out of coat is much better in size, substance and head. Kathleen had a walk over in limit and was again beaten in the open by ch. Sig's Girl, in perfect condition.

There was a fine entry of sporting spaniels to face Mr. Thomas, a compliment which that gentleman deserves. There were 130 in all, and the cuality could hardly be excelled anywhere. In Irish water spaniels, MacCarty had almost a walk-over with Peggy Shea. There werc eleven entries of field spaniels, and King Brace, a new importation by Ben Lewis, was simply irresistible; the others were not in the same street.

Cocker spaniels, of which there were ir 7 entries, showed a marked improvement all round. They were a very even lot, but in the dog classes, at all events, there was nothing new brought out to
beat Ole Obo, Perfection, Knoydart Robin Hood and Braeside Blue Jacket, the first named winning in open blacks, any other color bringing Perfection to the front. In the bitch classes several new ones came to the front, among them being Geo. Bell's Colored Girlie, and Thos. Lemon's Irene, a bitch with:. nice, clean cut head and good action.

Collies were a very good entry, numbering 68 all told, but the quality, taking them in the aggregate, was not equal to what has been again and again exhibited in Montreal. True, there were several conspicuous examples of the collie type which could hardly be improved on. 'At the same time, there were not a few of the "only collie" varlety. Conspicuous among the dogs was old Woodmansterne Conrad, now over six years old, but looking as well as ever he did, in fact, he was in perfect bloom and had no difficulty in coming to the front until he came in contact with Balmoral Duchess, the winner in the bitch classes, ior the best collie in the show. This latter is a new importation by Mr . Cromwell Cox, Ottawa, and the first time shown this side the fitlantic. She was a picture to look at, and, notwithstanding the absence of any white markings on her face, has such a lovely color and beautifully set dark eyes that light up and give expression to a finely-shaped head that she is attractive from whatever point of view you look at her. Perhaps a little light in bone, that is about all that can be said against her, otherwise she is one of the best bitches that has ever appeared in this country, and we congratulate Mr . Cox on his find, and have no doubt that in much better company than she had to buck against in Toronto, will be able to maintain the premier position. Mr. Cox was somewhat fortunate with his other dog, Balmoral Piccolo, as he did not run up against Conrad until the winner's class, the latter being only entered in Veteran, where he had a waik over, and the old dog was not to be denied. Mr. Reeves, the owner, also showed a son of Conrad's, but he was sadly out of coat. However, he is sure to make his mark later on, as he possesses all the qualities of his sire, and, if we mistake not, is slightly better in some respects. Mr.


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(on the Tesin Prail, Cassiar Dintrict, B.C.

Joseph Reid showed a puppy by Elwyn Astrologer ex-Heather Blossom, which took second place in the class, his litter brother, belonging to Mr. James Ainsley, Outremont, taking 'lird. Among the bitch puppies Mr. Reid exhibited two from the sams litter, for which he got first and second places respectively, coming second in open with Lilac Blossom first in puppies.

Old English Sheepdogs had only three entries which were not of conspicuous merit. Bulldogs were fairly well represented, Mr. Tallis' The Terror winning in puppies. Mr. H. L. Thomas' Duke of Wellington getting into third place. Limit and open was captured by Mrs. F. F. Dole's Edgewood Lord Brunswick. In bitches Rodney Beatrice won from Mr. Thomas' Rose of Kent, a decision which was open to question.

Bull terriers were a very good representation and as usual Frank Dole had the lion's share of the awards.

Fox terricrs, wire and smooth, were by far the finest exhibit in the show, the entries of the Norfolk Kennels, the Sabine Kennels, A. A. Macdonald and Fraser \& Lindsay making up a collection that would be difficult to find in other than one or two shows on the continent. Fraser \& Lindsay won through with Matchmaker in the wire dog classes and in the smooths ch. Norfolk Richmond was the winner, with his kennel mate, Norfolk Mainstay, close second. In smooth bitches that grand terrier ch. Norfolk Handicraft was first. beating out Matchmaker for the best terrier in the show. The Norfolk Kennels also secured the David Ward Challenge Cup (value $\$ / 20$ ) given by Sam. Coulson, Esq., for the best kennel of four, any breed, with his smooth fox terriers, after a very keen competition.

The exhibit of black and tan (Manchester) terriers was the finest ever seen at any show in America, and Mr. Raper is authority for the statement that it could not be equalled at any show in England. There were forty-nine all told, and this splendid record may be attributed to the influence of the recently formed Black and Tan Terrier Club.

Mr. George Caverhill as usual won everything in Skye terriers and Mr . Johnston Mitchell followed suit in Yorkshires.

The bench show at Sherbrooke was held in connection with Canada's Great Eastern Exhibition and under C. K. C. rules. The entry was very disappointing, only about sixty dogs putting in an appearance. This may be accounted for in some measure from the lack of advertising and the fact that up to the time of the show being held it was not known who was to make the awards. The whole preliminary work in coniaection with the show practically devol, ed upon the secretary of the Exhibition and this with his other onerous duties was altogether too much for one man. We understand that an effort is being made to form a kennel club in Sherbrooke, and we hope the fanciers there will succeed in their designs and that their efforts will meet with success on a future occasion. While the number of dogs shown was small, there was quite a lot of quality, and the judges had no sinecure in making the awards. Messrs. Jas. Moore and H. M. Walters, both of Montreal, awarded the prizes, the first named taking pointers, setters, collies, field and cocker spaniels, greyhounds, foxhounds and beagles, the latter looking after all other breeds.

## Our Medicine Bag.

The premium list of the L. K. A. Show is out, and it certainly merits the consideration of fanciers. There are 365 classes, with prizes $\$ 15, \$ 10$ and $\$ 5$ straight away through, except, of course, in'winners, where the prize is a medal. The $\$$ roo prizes for the packs of hounds should be a great attraction, and the number and the value of the specials make oue wish to own some dogs in order to be in the race. Entries close Oct. 1 , and the entry fee is $\$ 3$ for members and $\$ 5$ for non-members. Mr . Theo. Marples, editor of 'Our Dogs,', will judge all the breeds that were originally assigned to Mr. Gresham.

## v

Mr. Justice J. Maitland-Dougall, of Duncans, British Columbia, states that game is very plentiful, and on a recent trip they could easily have filled the trap in which they were driving, with grouse and pheasants, without so much as leaving the road. And at one point they saw two deer in a clearing but 12 short distance from the road-one a magnificent buck with great horns and another smaller one about two years old. So tame were they that it was not until the judge and his npanion shouted at them that they made any effort to move. Pheasants parcicularly are very plentiful, and farmers are complaining of them. "To give jou an idea," said Judge Maitland-Dougall, " of how numerous they were last year, I may say that two of us in the office, who do not do more than the average shooting, bagged between us about roo cocks, and this year I am sure there are many more about than last."

Brome Lake is furnishing anglers pretty good sport just at present, judging from an Ottawa correspondent, who mentions the capture of twenty black bass in an hour one day with his "Massassaga" fly, but evidently felt rather blue because his string did not average more than $11 / 2$ pounds per fish. Another gentleman just returned from
there said he saw one party with two black bass beauties, which together weighed 12 pounds-one a shade under 7 pounds and the other a little over 5 pounds.

We are in receipt of volume $V$. of the Canadian Kennel Club Stud Book, which carries us up to Aug. 31, 1902. Progress is evident on all sides. The book is very carefully compiled and well printed. The pedigrees have been scrutinized by those most competent in each case and the names of the scrutineers are given. There seem to be more collies registered than any other breed. Pointers, setters, cockers, fox terriers and Irish seem to be well thought of. The spread of the western part of the Dominion is likely to give the secretary a good deal more to do in the future, and we may say that Canada is making lier mark in the dog-breeding world the same as she has done in other ines.

An excellent, cheap and efficient mounting paste, that has the highly desirable quality of keeping for a long time, is to be made as follows :

| Flour, | 3 oz. |
| :--- | ---: |
| Alum, | $1 / 4 \mathrm{oz}$. |
| Campinor, | 40 gr. |
| Water, | 20 oz. |

Mix this well and boil it. Then when it has cooled, it is all ready to be used.

We regret to say that Messrs. F. \& A Stuart's St. Bernard dog, Sir Hereward II., which won second place at Toronto, has since died from distemper. He had not been in the best of health since Ottawa show, where it is supposed he contracted the disease, but the symptoms, at the time of his being sent on to Toronto, did not develop and it was not for a moment thought he was suffering from this complaint. However, on the third day of that show he was seriously ill and was at once put under treatment. A marked improvement followed, but on arrival here it was at once seen that he
was dangerously ill. The services of a vet. was at once secured and everything possible done to arrest the progress of the disease, but he finally succumbed after a few days suffering. Messrs. Stuart, who have been very unfortunate lately, will have the sincere sympathy of all true fanciers in the loss they have sustained through the death of this valuable uog, who, up to the time of this attack, had the promise of a great future in the show ring.

Rod and Gun's circulation is steadily increasing and its sphere of influence extending. Our latest subscriber hails from the Philippine Islands.

The Montreal Collie Club announced an open-air collie show (open to members only) for the 27 th ult., but owing to the inclemency of the weather it had to be postponed. It will now be held on Thanksgiving Day, October 16 th. Mr . "Tom' Smith, of Laurencekirk, Scotland, will give out the ribbons, and as he knows all about a collie there is little doubt he will be able to give satisfaction.

The open season for moose aud caribou in Ontario this year, which commences October 16th, north and west of the line from Mattawa to Port Arthur, and November first, south of that line, promises to attract many big game hunters from the United States. Unfortunately the late date of the opening is against the best interests of the Province and the hunters, many of whom hesitate to risk a trip to any district which involves much canoe work, where the danger of the early frost might interfere with their movements ; many more would go into Ontario if the season opened earlier. This has been frequently pointed out in Rod and Gun in Canada.

That ummitigated nuisance, the German carp, in addition to an already heavy arraignment, has to answer to yet another charge. Originally introduced into a small stream or milidam at Newmarket, Ontario, it got into Lake Simcoe through the Holland River, and ,as since proved itself a veritable pirate, destroying every other fish
inhabiting its waters, with the possible exception of the bass. To its many crimes are now added the destruction of the beds of wild rice in Cook's Bay, Lake Simcoe, and the consequert driving away of the wild duck. This particular spot at one time contained many hundreds of acres of wild rice, and was the feeding ground of large numbers of duck and other wild fowl, but now there is not a blade of this plant to be seen. Alderman O. B. Sheppard, Dominion Inspector of Fisheries for Ontario, recently returned from an inspection of these waters, said that what was at one time the very best duck hunting grourds in the province had been destroyed. The carp has so far resisted all efforts af its destruction, being very tenacious of life under the hardest conditions, and successfully defied the best laid traps for its capture. In addition to its other faults, the carp has not even the virtue of being a good food fish, but has degenerated from its natural fine-grained condition in its native German waters to a coarsegrained, unpalatable fish, in its new surroundings. 'The ultimate destruction of this pest is a problem now confronting the fishery departments of both countries.

The Ottawa show had a total of nearly 500 entries, about 350 dogs being benched. The best filled classes were American foxhounds, cocker spaniels, collies and bull terriers. Pointers and setters, with the exception of Irish, of which there was a number from Montreal, were almost an unknown quaintity. The Terra Cotta Kennels contributed wolfhounds, the best specimen being Kubelik, who won $i_{1}$ all his classes. In cockers Miss E. Macdonnel won with her particolored Braeside Blue Jacket, and in bitches Mr. Davis' Kola won over Ottawa Jessie, a nice little dog which takes a lot of beating when in proper condition. Balmoral Kenmels came to the front in collies with Balmoral Piccolo, an imported son of the Englis'a champion Parbold Piccolo, and were also second and third respectively with Brandane Chief and Bafmoral Hope. Bulldogs had a good entry of thirty, but sixteen of these were absent. Mr. H. L. Thomas, Montreal, won handily with his fine
puppy, Duke of Wellington, in all classes for sex, and in the bitch classes with Rose of Kent, which also annexed the C. K. C.'s bronze medal for the best specimen of the breed. In bull terriers ch. Faultless and Ottawa Belle scored respectively. Mr. Joseph A. Laurin won in Airedales, both sexes. There was not much in smooth fox terriers to look at, but in wires Messrs. Fraser and Lindsay's celebrated dog Matchmaker won everything, including the valuable gold medal donated by the president of the Ottawa Kennel Club, Mr. J. Cromwell Cox, for the best specimen of any breed in the show, the Inaugural Cup presented by Messrs. Cox and Mutchmor for the most typical specimen, and the Ottawa cup, donated by Mr. John G. Kent, for the best fox, bull or black and tan terrier. Irish terriers were poorly filled, Scotties had no entries, but black and tans were a fairly good class, in which Ringmaster and ch. Daisy were adjudged the best of their respective sexes. Mr. George Caverhill's Skye terriers of course won. Mr. Chas. Mason, New York, was the judge.

We hear ugly rumors from the far north. It is said, and said openly, that the Indians are killing the wood buffalo, and that the Mounted Police are powerless to prevent it. Our admiration foz the North West policeman is unbounded, but when half a dozen men have to look after a territory as big as all France, Germany, Austria, Italy and Spain, it is just possible they may not be able to put a stop to poaching-if they make the Indians keep the King's Peace it is quite as much as the taxpayer has a right to expect.

Yet if the buffalo are being wiped out something should be done at once. Heads are worth $\$ 350$ apiece, and the temptation is far too strong for any Cree to resist, hence the men who are buying the heads must be found and made an example of. The true place to protect the buffalo is not on the Smoke River, but at the shipping point.

And while we are in the humor let us make another suggestion. Taking it for granted that the men of British Columbia do not wish to have their ranges denuded of timber, had they not better
set $t$ emselves seriously to work to prevent forest fires, by punishing the guilty parties?

It is no secret that many of the worst fires are started by prospectors who choose a dry spell for their operations. On the off chance of discovering a ledge of mineral bearing quartz these men will burn up ten thousand acres of magnificent forest-it's almost as sensible as the Turkish Pasha's plan of setting fire to his house to get roast pig. Moreover, the Turk burnt his own property; these fellows burn the property of the people.

Many complaints have racied Rod and Gun from the erstwhile owners of more or less valuable doys. It appears that that contemptible creature, the dog poisoner, is more than usually active this year, so much so that it would appear advisable for dog owners to band themselves together and thereby insure some measure of protection for the inmates of their kennels. The dog poisoner is usually a person of very lowly intelligence, for any one worthy to be ranked as a man would certainly not condescend to such a pitiful revenge as to take the life of a faithful dog out of spite. Granting this, there is little doubt that a shrewd detective would very soon run some of these gentry to earth if put upon their trail, and then no doubt the courts would impose heavy sentences upon those convicted of such a dastardly c-ime. It has been suggested that dog owners should contribute a small sum towards the expenses of a dog protective association, the secretary of which would be notified in case of their dogs being victims of the poisoner. It would then become the duty of the association to take measures to ascertain the guilty party and to bring him within reach of the law. Should this suggestion meet with the approval of any of our readers we hope that they will correspond with us regarding the matter.

We believe that the Ontario Government is making a mistake in permitting commercial fishing in the smaller lakes of the province. For instance, the net fishermen are now depleting the waters of Dog. Lake, Missanabie, and have alread; done damage that it will take
years to repair. These men are not supposed to net brook trout, but as a matter of fact, they ship more brook trout than any other fish. These fislermen are always miserably poor, as they receive but four cents a pound for their catch and have to find ice and pack them into the bargain. It seems a pity that lakes that would attract large numbers of sportsmen should be cleaned out by market fishermen, who merely succeed in making a bare living by skinning the waters and who would be better employed elsewhere. The province will lose a lot of money if this short-sighted policy is continued.

The cut of Mount Rundle, which appears on the cover of the present issue, shows a characteristic bit of Banfi's beautiful scenery. Moreover, although the base of Rundle is within a couple of miles of the railway station, goat are occasionally seen upon the dizzy ledges of the eastern side. This shows that the man who is after big game need not travel very far from civilization to get itbecause Banff is very much civilized, and you can get your champagne frappe, Turkish cigarettes and other necessaries there as well as in New York or London. Of course, Mount Rundle is not recommended as the best possible hunting ground for goat, and, as a matter of fact, they are seldom there excepting in winter, but a few miles beyond, goat, bear, caribou and sheep may be found in reasonable numbers by the persevering hunter.

The sixth amual report of the Forest, Fish and Game Commission of the State of New York has reached our hands. Once again we congratulate the Commissioners upon their work. The great State of New York is setting an example to the rest of the world in these annual reports. The range of subjects covered is isreat, and each paper is written by one who understands his subject thoroughly. The paper upon "Methods of Estimating and Measuring Standing Timber," by Mr. A. Knetchel, State Forester, is one that deserves to be read by everyone interested in scientific forestry, though we fear that the day is yet distant when Canadians will adopt any such exact methods. The township
maps, with their wealth of detail and 20 foot contour lines show the accuracy to which timber land surveying is carried in New York state-but the expense attendant upon the production of such maps must, of course, be considerable, and until the Dominion or Provincial Governments open their purse strings we are not likely to have similar luxuries put within our reach. Mr. Denton's fishes are very lifelike, while the five colored plates of game birds that Mr. John L. Ridgeway has contributed to illustrate the articles written by Mr. H. C. Oberholser are quite as good in their wayin fact, we have nothing but praise to bestow upon this admirable report.

The insidious complaint known as hay fever is said to number 100,000 victims in the United States alone. There is no cure for it. So soon as the pollen of certain grasses are given to the four winds of heaven, the hay fever sufferer begins his annual martyrdom. He has then-four courses open to him; he may remain within the danger zone and bear his sufferings like a stoic ; he may take ship and remain at sea until mid autumn; he may bury himself in the heart of a large city where, surrounded by a cheval de frise of bricks and mortar, he will be comparatively sife, or, better still. he may hurry to some Cauadian point west of Mattawa, where he will be perfectly secure and where he may enjoy fishing, bathing, boating, camping and, finally, shooting to his heart's content. One of the leading hay fever authorities in the United States has declared that the only region where the way fever patient is safe is in western Ontario or northern Quebec.
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A charming lootel by the sinore of the great Shuswap lake, at the junction of the Okanegan 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.

Fishermen who are fortunate enough to live in, or visit British Columbia, have surely nothing to be dissatisfied with when they can find sport like that mentioned in the Nanaimo Herald, B.C., recently:

Mr. C. F. Barker, of the Vendome Hotel, returned last evening from a two days' fishing trip to Little Qualicum. His catch comprised about two dozen of the prettiest rainbow trout ever pulled out of a stream. All of them were over a pound in weight, most of them went as ligh as five and six pounds, and one big fellow measured over two feet in length and weighed eleven pounds. Mr. Barker was one of quite a large party of fishermen, all of whom made good catches.

We have recently seen a photograph of a fine moose head obtained by Mr. C. H. Woodruff, of Chicago, in Alaska, 200 miles north of Dawson City, in September, 1900. It is a grand specimen, and the spread is said to be $69 \mathrm{~T} / 2$ : inches.

Quite a few of the photographs received from contributors to Rod and Gun in Canada reach us in a more or less damaged condition from creasing, etc., while in transmission through the mails. As many of these photos are difficult to get, and often hard to replace, we suggest that contributors enclose photographs or prints between good heavy cardboard, thus reducing the risk of injury to a minimum.

Ed. Corning and H. A. Brown returned last week from a fishing trip to Fish Lake, 20 miles south of Kamloops. In five days they caught Soo lbs. of fish, which included silver, salmon and speckled trout. They state that this is the greatest lake for fish in British Columbia, in fact the greatest on the continent, and recommend lovers of the rod who are looking for good sport to go there. - Revelstoke Herald.

These two men no doubt thought they were having good sport, but they have yet to learn that fish lilling on this scale is not sport, but butchery.

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Rod and Gun is the official organ of the Association, which supplies the articles relating to Forestry published therein.

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

The annual fee is $\$ 1.00$, and the Life Membership fee $\$ 10.00$.
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## CANADIAN BIG GAME

THE time for the turning of the leaf has come: the velvet on the antler is pealing in long strips, leaving a clean horn the color of buckskin. The law will now permit the shooting of the moose, caribon and deer-and wouldn't you care for a head or two yourself?

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

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

The great province of Quebec yet holds its own as the home of rast quantities of deer, and the giant bull moose bathes and feeds in the great Lake Kipawa as of yore. Last
 Autumn a head obtained in this region by a Montreal sportsman spanned 62 inches. The Gatineau, an important tributary of the Ottawa, flows through one of the best deer ranges of the continent, while the Lièvre, Rouge and Nord drain similar and almost equally well-stocked regions.

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

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

For further information write to any officer or agent of the

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    This excellent smapshot was taken by Mr. S. J. Thompson at Banff, Alberta,

[^4]:    Communications on all topics pertaining to fishing, shooting, canocing, the kennel and amateur photography, will be welcomed and published, if suitathe. All communications must be acompanied by the name of the writer, not necessarily for publication, however.

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