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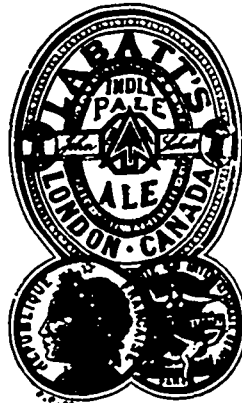


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## CONTENTS.

	PAGE.
Frontispiece—Moose Hunters' Camp on Kippewa Lake.	
A Swan Valley Deer Hunt in 1900, by A. Heneage Finch.....	499
Reveries of an Angler, by Welford W. Beaton .....	500
The Habits of Ruffed Grouse, by R. H. Brown .....	502
Forestry Department.....	503-507
Editorial .....	508
The Gun, conducted by "Bob White".....	509-510
Amateur Photography, conducted by Hubert McBean Johnstone .....	510-514
Kennel Department, conducted by D. Taylor.....	515-517
Chips, by C. A. B.....	517
Salmon Flies .....	518



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MONTREAL, APRIL, 1901.

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## A SWAN VALLEY DEER HUNT IN 1900.

By A. Heneage Finch

"By the great horn spoon! I'll have him yet!" and he jumped up and flattened his nose against the half-cleaned old 8x10 negative which covered a hole about six inches square on the southern side of our "seven-by-nine." "I'll have him yet!" "Have what?" says I, as with difficulty I recalled my mind from the jungle, where I had been with "Mowgli," listening to the chattering of the "Banderlog." "There's another! and another!! Deer or wolves for sure!" and I jumped. "No, no, only snow flakes." And with "his eye in a fine frenzy rolling," he punched together the embers of our decaying fire, a performance sadly needed to keep out the cold, for our "shack" had been built of green cottonwood lumber, and during the past summer it had shrunk so badly that now the cracks nearly overlapped, and the four boards originally on the door had shrunk to two and a good-sized sliver. The roof was sodded, and during the past four or five days and nights it had rained almost incessantly. But a couple of pieces of old tent cloth protected the stove and bed from the muddy streams. Now the wind had veered round to the north-east and was gently blowing across Lake Winnipegosis, and the temperature had fallen nearly to the freezing point; the rain had ceased, and the welcome snow was falling in large feathery flakes. Soon the Duck Mountains, some three miles to the south, were obscured by falling snow and evening's gloom, and the sodden ground was steadily whitening.

My chum, who had but lately come from the "Oukl Sod," was very anxious to secure a pair of antlers before returning to bring out his bride to share in the pleasures, toils and profits of his new prairie home. He had bought a half section of railway land, had built a substantial house and stable, and had some forty acres ready for crop, and was now stopping with me for company till the sailing of his ship from Montreal, and he had but two days longer to remain.

For the past two weeks, since our short game season had opened, he had patiently—*patiently*, did I say? well, let it pass—scanned the heavens, and on five days had roamed the "hog's back" and adjoining scrub, where "mule deer" tracks, paths and beds were in abundant evidence. It was an ideal hunting ground, the billowy foothills of the "Ducks," whose top and side are covered with heavy spruce, and down whose northern side flowed three beautiful spring rivulets, gave shelter and food for large numbers of moose, elk and mule deer, or "jumpers," as they are locally called. The "coulees" were usually filled with a dense growth of willow, poplar and alder,

and their tops and sides covered with birch, hazel and a tangled mass of peas, vetches and convolvulus.

Hastily pulling back the bed covers, he secured from among the fragrant marsh hay which formed our couch, his carefully wrapped old Snider. Many sportsmen with their "30-30's" and "Lee straight pull's" had laughed at his "antiquated cannon," so he usually did not keep it on exhibition. But woe betide the luckless wolf, fox, or prairie chicken that came within its range. The barrel within was polished like a razor blade, and the coarse military sight was removed and replaced by a home-made peep sight fastened on by the tang screw. Since his coming our larder had never lacked a full supply of prairie chickens. Twenty-six shots bagged twenty-six birds, every one neatly beheaded by this deadly "cannon."

Everything was put in readiness for the coming sport. We retired, but not to sleep, our Hibernian was too excited, so opening our stove door—we were out of oil—which was perforce close to our "bunk," and piling in fresh wood, I read aloud from the "Jungle Book." About midnight I was startled by a deep sullen roar, which shook the jungle and made my hair rise. I listened and trembled. Again, close to my very ear, came that blood-curdling rending of the midnight gloom. The book dropped from my nerveless grasp and I awoke. My friend had succumbed to Morpheus and had given a couple of preliminary snores, which augured several hours peaceful slumber for him. He is possessed of—or by—the most terrible snore I ever heard. The nearest home-made approach to it I ever heard was for two boys to see-saw a heavy logging chain back and forth over a large box stove. Long before daylight his "war pipe" assumed a more musical jingle. The change again awakes me, and my chum at the same time leaps from the bed and starts to build the fire. The faithful alarm clock had aroused us both. Protruding our heads through one of the crevices in the door, we see the ground covered with about six inches of the beautiful. Hastily eating our bachelor breakfast, we wait for daylight and the coming sport.

Arrayed in Prince Albert coat, corduroy pants, seal skin cap, No. 14 moccasins on No. 8 feet, pants tied round ankle with binder twine, waist circled with canvas belt holding 24 Snider cartridges, at side a sheathless carving knife, at back a well-sharpened lathing hatchet, on shoulder his rusty Snider, eyes afire and cheeks aglow, my friend presents a unique figure. Oh, for my faithful kodak! Thus arrayed we sally forth, I to act as guide, look on and enjoy the sport. Moving eastward across some plowed ground, we enter the "scrub," which was here very thin and open, well grown with grass and

vetches. We had not gone a quarter of a mile till we found the trail of a number of deer going mountainward. Silently stalking we follow on, frequently climbing a fallen log to view the surroundings. Up, up, we go; crossing gullies, climbing hills, under logs, through brush, on we creep. Round the "hog's back," through the tall poplars we go and approach a large depression filled with fallen timber. Stealthily keeping out and climbing onto a log about six feet from the ground, I spy our band of seven beautiful mule deer quietly feeding about seven hundred yards away on the opposite slope. Beckoning my chum and enjoining silence, I showed them to him, and in pantomime directed him to "stalk" while I held their attention. The wind was in our favor, so, giving a sharp whistle, every head is raised and I gently wave my handkerchief and they all stand and stare—one magnificent aged buck, one "spikehorn," two does and three fawns. Steadily waving, I watch the deer with one eye and my chum with the other. Through the snow he creeps, under logs, around roots, silent and stealthy as a cat, till within about one hundred and twenty yards and somewhat off to the right. Gently he rises to his full height. Raising his hand to stay my waving, he breaks a twig. The patriarch turns his stately head. Instantly the rifle rises to shoulder and belches forth, and the deer drops in his tracks. I was not prepared for what followed. It was not on the programme. Letting a blood-curdling war whoop, grasping his cap in one hand and his trusty rifle in the other, he performed a series of startling evolutions, and, to me, incoherent shoutings. Hastily descending and running to him he redoubled his exertions, tossing his cap and rifle in the air and catching them as they fell, and shouting: "Be jabbers, I've got him! I towld yez I would! Won't Shela, mavourneen, be proud of me now! And it's a proud boy I am meself this day." And well he might be proud. It was a "stag of ten" with a perfect head. The bullet had pierced its brain. A shot to be proud of, too.

It was now nearly noon, so we returned to the "shack," ate a hasty lunch, got Tom, my best ox, and by six o'clock we had him home. He weighed without horn and hide just 215 lbs. There was not time to prepare the head for mounting, so we just removed a portion of the skull with the antlers. Next morning early, taking Tom and the "stone boat" we started with my friend's valise and prize for Minitonas, where we were just in time to catch the outgoing train. I feasted for months on venison stew, and the skin now forms a nice soft winter mat beneath my feet as I write. A letter just received, bearing an Irish post-mark, contains an invitation to my friend's wedding, and asks me to meet him and his bride at Minitonas on March the 17th—Saint Patrick's Day in the morning.

#### REVERIES OF AN ANGLER.

By Welfor W. Beaton.

The sun seems to have rested on the glistening mountain top, fleecy banks of clouds lazily make their way between the peaks, the rugged crest that holds the sun heliograph its companions of the cloud-land messages of brightness, the blue lake lies without a ripple at the feet of the white and majestic mountains, a few snow flakes come wandering aimlessly down from the house tops, and damp spots on the sidewalks tell of a coming spring. It comes early here on Lake Kootenay. On the first of March last year we commenced a very pleasant season's yachting. It was quite warm and did not grow cold again until nearly November. But they say it was an exceptional

summer, so, you see, we have—like every other country on earth—exceptional weather, and as yet I have seen none of the other variety. But anyway it won't be long now until the boat houses again open and the lake becomes a pleasant resort, until the mouths of streams that come tumbling down hundreds of feet of rocky mountain sides yield up their one, two and three pound trout that make as pretty a fight as one would wish to enjoy. In a few more weeks the lake shore will send its little fleet of craft out to the fishing ground, but a stone's throw away, and there a score of anglers will whip the glorious Kootenay lake for the next morning's breakfast. Sometimes they take anything—I saw a man on a boat last year catch a three pounder with a strawberry—and other times they are quite particular, and then you have to tie your fly to fool the wily speckled bundles of nerves into thinking that the grub which falls so gently to the surface of the lake is but one of the hundreds upon which they have been feeding of late. But you can generally get your breakfast.

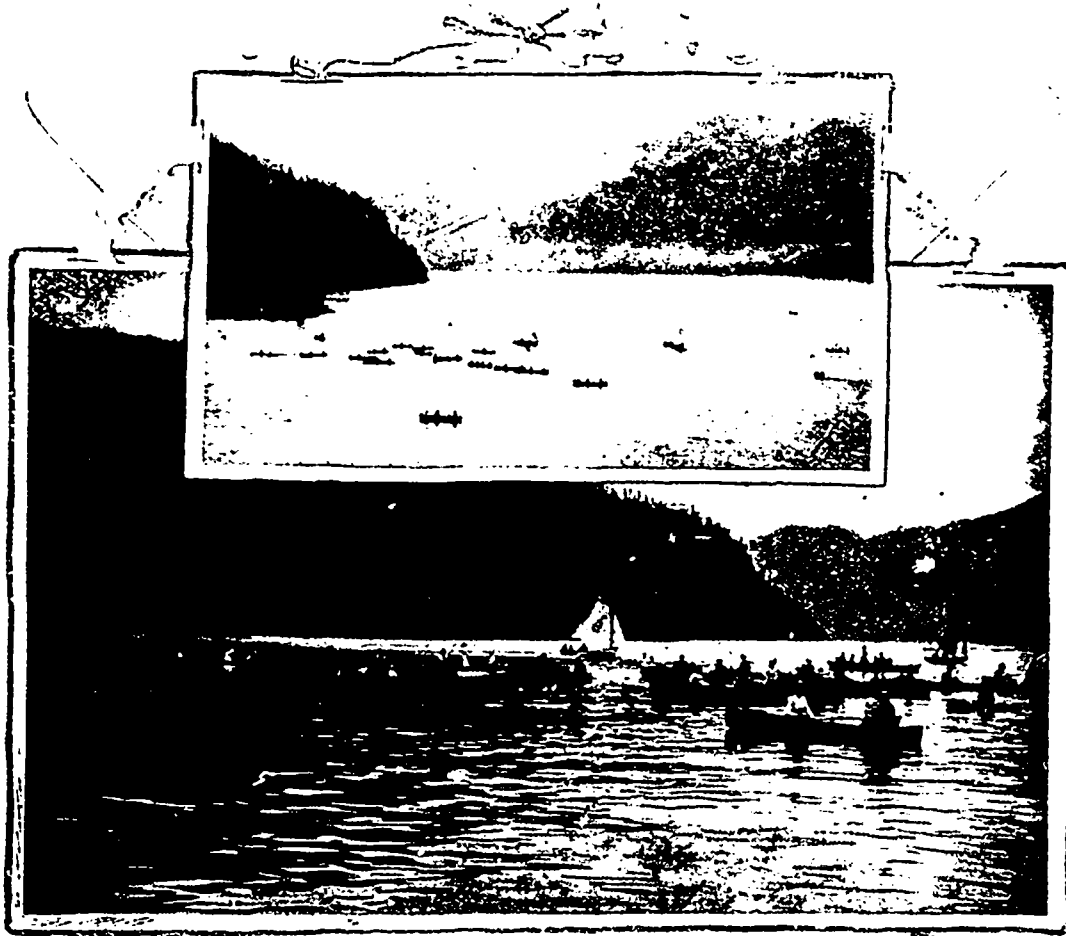
And so it will soon be time to go at it again. It seems such a short time since I put my rods away and since the Irish terrier puppy knocked down the net in such a way as to cover himself. Oh! Poor net. Many a beauty flopped about in your enfolding embrace and many a one would have gone back to fishdom to tell strange tales of flies that kill but for thee. However, you were not made to catch Irish terriers as your first cousin was made to catch butterflies. It might have been all right had not the Irish terrier objected. But the rods are safe, and early in his career that same puppy learned to avoid the fly book as he would poison. There is the small five ounce flyrod, and also the 16 foot, 26 ounce salmon rod with a double grip that requires all your hands to master. There is a short trunk rod, and one for the three or four pounders, to say nothing of innumerable broken joints and tips, superannated reels and reels still in commission, and the musty basket, and the trolls and the old lines, and also that coat which will certainly cause a breach in the family if ever I don it again. Alas, old coat, we must beware of breeches in the family, especially when the wearing of them is still a matter of dispute.

And here is that last reel I got, got for a purpose, and the purpose was accomplished. Come here Rod. Do you remember that you were with me in the boat that day? You chewed the corner out of the basket while I was aimlessly rowing about and the hairs on your back stood up so straight when I hauled the monster over the side that I was afraid to touch them for fear of pricking myself. And how you 'd bark while the fight was on. You enjoyed it as much as I 'd, but I believe you ruined the net that night because I used the gaff. You never did like the gaff, that is since you set about examining it about the same time as you became enamoured of the fly book. But you are a good angler now, and no longer a puppy, and in a few weeks we will be at it again.

You remember when the reel arrived, the Hendryx silver rubber, double multiplying tarpon reel. I believe that was the way the catalogue described it. Anyway it carried two hundred yards of line, and when it was attached to that salmon rod it looked big enough to catch a whale—and we *did* catch a whale, didn't we? The look you gave me after I lost my third or fourth big one on account of small tackle settled the matter and I decided to get the biggest I could. How hopeless I was when that great big fellow caught that poor little minnow and I tried to keep a tight line on him with that wretched little reel. How the line sung as he pulled it taut when he leapt clear of the water, how he stirred up the lake as he flapped

about, and how feebly that poor little reel sung as he sank like a torpedo and then came rushing towards us, making the line so slack that we lost him. Did you overhear me say something or were you too excited? Wasn't it you that first drew attention to the fact that the line had run through my fingers and cut me to the bone? I believe it was. And you remember the other one, when we were rowing along the face of the high rocks where we expected only to get the little fellows and I was slowing up to cast when—whirr! an angry blast against the dying sun, a furious lashing of the deep waters and away went our victim, helter skelter towards Kaslo. Some place the line broke and as the little hooks bothered him he came to the

commotion. Good Lord, what a commotion! About two hundred feet of line was out. Just as I secured the rod and slightly tamed the wild song of the reel there was a splash and a mighty trout rose four feet from the surface of the lake. Cubong! went the line and the water from it formed a long thin cloud from the boat to where the monarch of the deep left his native haunt. Then there was a rush. I applied the brake and kept all the bend of the rod against him, but two hundred more feet of line went out before he thought that he was having a pretty tough time. I commenced to reel in and coaxed him closer to me. He darted from side to side, twice he rose majestically and I could hear the spoon rattling as he did his



*A Frequent Afternoon Scene near Kaslo, B.C.*

surface, and as far as we could see in the twilight he kept his course, and after that we followed him by the faint splash that came to us across the waters—waters that are so still with the towering mountains on all sides of them. And you whined and licked my hand. You were just beginning then to learn how to kill fish, and what an enthusiastic angler you became. Will you ever forget that last day when I nearly scared you to death?

Armed with all that great big tackle we pulled out from the boat house. We had realized that to catch the big ones we would simply have to troll. We had cast until our arms were tired and then took to trolling. A person could have hailed us from our room in the Kaslo Hotel—when there was a mighty

best to shake it loose. But the line was ever taut, and I had him well in hand. Closer and closer he came. He was resting for another bold stroke and I watched for it. I had him within one hundred feet when away he went again, straight from me at the speed of the Imperial Limited. I was easy on the brake for a while and let him have lots of line. Again I controlled him and commenced to wind. I knew he had his side towards me for he pulled like a demon. Then he gave a jump. Good heavens, how he startled me! Right towards me the jump was and almost quick enough. But not quite, for there was only the faintest suspicion of a loose line and not enough for his purpose. He seemed to be good and tired then and let me pull him in, but how stubborn he was and what hard work he gave

me. The end of the rod, pressed against my ribs, was making itself felt and my left wrist ached a bit. Slowly I worked the reel, having to drop it now and then to grasp the grip with both hands as our fish showed some sign of life. But it was as sure as it was slow, and the reel gradually filled up. He was scarcely twenty feet away and I had him at the surface. Now I'll swear he took fright at you, standing with your fore paws on the gun'll of the boat, your ugly little yellow ears striking straight up and that apology of a tail nervously wagging as it is now. Anyway he bolted, and you barked and my foot slipped and the whole affair nearly upset. What excitement, but what sport, what supreme joy to be holding that rod and to feel that fellow going down, down, down until I had played out over a hundred feet of line. We had seen him at close range then and knew he was a big one. Down in the depths he lay like a log, but our tackle was too much for him and again he approached us, with various little side trips, of course, but closer, ever closer, until my tired arms rebelled most furiously but I won the final struggle with the gaff and over the side he came. You wouldn't go near him, for he was slightly out of your class, weighing twenty-one pounds and measuring thirty-six inches. You will hear some people call them land-locked salmon and all sorts of things, but don't believe them. They are some gigantic member of the trout family and can fight like the devil.

Then I went away, leaving you a luxurious boarder at the Kaslo Hotel and when I returned there was somebody else to pay allegiance to. A few weeks hence when you hear me say some bright Sunday morning that I have to visit the mine, don't believe me. Just sneak out of the back door and meet me at the boat house. We are no longer our own bosses, old fellow, but we'll catch a good many of those big ones yet. And if those poor benighted people down east had any idea of the sport they can enjoy right here in Kaslo they would flock here, wouldn't they? Fancy fishing a stone's throw from such an hotel and catching such beauties. But I mustn't forget to store my tackle at the boat house. I'll keep it there this summer. And you will excuse me, won't you old boy, if sometimes—on week days—I have someone in the boat who will occasionally scream?

#### THE HABITS OF RUFFED GROUSE.

R. H. Brown.

The house in which I live is on its own ground and situated some 200 or 300 yards from the public road. There are several acres of spruce and hardwood trees close to our garden, and other detached groves and thickets a few hundred yards away.

For years an occasional partridge (Ruffed Grouse) has visited our garden during the winter to feed upon the berries of a barberry hedge which makes one boundary of the garden and of a hawthorn hedge which bounds another side.

During a hard winter some 8 years ago, two partridges came daily, or rather just at sundown to feed; and, when they had after a week or two, consumed most of the berries, and began to come on the ground beneath to eat the berries which they had dropped, I began to scatter some oats for them under the hedge on the snow. They took to this food with evident pleasure. I renewed the supply of oats daily, and as one end of the barberry hedge touches the bow window of the drawing-room, I at last, by putting the oats nearer to the house, gradually brought them to within twelve feet of the window. The birds disappeared in April when the snow had gone, but next winter about the middle of December, three or four partridge came.

This has now gone on for eight years or more. One winter six partridges appeared, another winter five came, and one year there were eight of them. This winter two came about the end of November, after a couple of weeks had elapsed another bird joined them, and so on until now there are six.

They come in swiftly like ghosts, one after the other, just after sundown and feed for ten or fifteen minutes, then run along under the hedge to the edge of the grove and fly up into the tall trees for the night. Sometimes they walk fearlessly across the open garden and along by the side of the conservatory, built as a lean-to on the house; and when snow is deep they seem to look longingly at the green things within. Half an hour before sunrise they fly down from the trees and visit the oats again, then fly off and return again at evening as before. Of course no one attempts to frighten them.

I have a couple of dogs who know all about game and are good for flushing partridges away from home, but we have persuaded them to let these birds alone. For the last two or three years the partridges continue their daily visits here until the first of May, when they go off to the wilder woods to make nests, I presume, and raise their young. There are lots of men and boys with guns who doubtless slay many of our visitors and their progeny in the autumn; were it not so we should by this time have a large flock, or covey, to feed.

We have tried in vain to get a good photograph of these birds, but their coming at sundown prevents one taking an instantaneous picture, and their incessant motion while feeding prohibits a time exposure. I had a pane of glass removed from the conservatory, and a board with a hole for the camera placed in its stead. We have wasted many films and plates in vain. I enclose three of the prints, none of which are satisfactory. In one you will notice the bodies of two birds, but their heads, which were rapidly working up and down while feeding, failed to take. In the distance you will observe the shadows of two others which were hurrying about, but must have stood still for the fraction of a second, the nearest birds were fifteen feet from the camera. A year or so ago I got a professional photographer with his camera and apparatus to attempt a picture or two but he met with no better success than we ourselves had done.

The fact that such wild birds as ruffed grouse should for so many years be coming to this place, situated within a mile of a town of 3,000 inhabitants, seems remarkable enough to be worth recording, and I would be glad to learn of any of your readers knowing anything of a similar kind.

#### To Smoke Fish.

Split down the back, clean and scale. Place in the shade for 36 hours, covered with a mixture of three parts salt to one part brown sugar. Next, hang in a smoke house made of bark, in which a fire of cedar chips smoulders. Twenty-four to thirty-six hours of this treatment should suffice. Salmon and trout thus treated make admirable breakfast dishes. Before use they must be soaked over night, then grilled. Salmon will fall to pieces if too fat. August is early enough to begin smoking them.

At Harrisburg, Pa., recently, Mr. Savage, of Philadelphia, introduced in the House a bill appropriating \$60,000 for the protection and propagation of fish and for the purchase of a site for the establishment of a fish hatchery and the erection of suitable buildings.

# FORESTRY

"Rod and Gun" is the official organ of the Canadian Forestry Association. The Editor will welcome contributions on topics relating to Forestry.

Editor—E. Stewart, Chief Inspector of Forestry for the Dominion and Secretary Canadian Forestry Association, Ottawa, Ont.

Sub-Editor—R. H. Campbell, Treasurer and Asst. Secretary Canadian Forestry Association, Ottawa, Ont.

## SECOND ANNUAL MEETING OF THE CANADIAN FORESTRY ASSOCIATION.

The Second Annual Meeting of the Canadian Forestry Association convened at 10 a.m. on the 7th March, in the Railway Committee Room of the House of Commons. In the absence of the President, His Honor Sir Henry Joly de Lotbinière, the chair was taken by the Vice-President, Mr. William Little. Among those present were also Mr. John Bertram, Mr. John Waldie, Hon. J. B. Snowball, Hon. Wm. Kerr, Hon. T. A. Bernier, Prof. W. L. Goodwin, Mr. J. C. Langelier, Mr. J. B. McWilliams, Dr. Wm. Saunders, Professor Macoun, Hon. J. V. Ellis, Dr. Jas. Fletcher, Dr. C. H. Schenck (Baltimore, N.C.), Mr. Geo. Johnson, Mr. Thos. Southworth, Mr. J. M. Macoun, Mr. Wm. Pearce, Dr. Christie, M.P., Mr. Norman M. Ross, Mr. T. S. Young, Mr. Aulay Morrison, M.P., Mr. D. C. Cameron, Mr. J. A. Gemmill, Mr. Hiram Robinson, Mr. W. T. Macoun, Mr. F. G. Todd, Mr. W. N. Hutt, Mr. A. C. Campbell.

The report of the Board of Directors showed that there was a membership of 244 in the Association, and that there was a balance of \$246.50 standing to its credit.

The main matters of interest during the past year in connection with forestry have been the formation of a Provincial Forestry Association in British Columbia, the meeting held in Toronto and Kingston and the various meetings held by Mr. Stewart in the West, resulting in the formation of local circles of the Association at Winnipeg, Virden, Brandon and Crystal City. In Manitoba all the lands north of Township 38, and west of Lake Winnipegosis, have been reserved from settlement as it is well timbered and known to be largely unfit for settlement, and the Ontario Government has set apart a reserve of over one million acres surrounding Lake Temagami. The continuation of the work so ably begun by the Ontario Forestry Commission in its investigation of the management of the pine forests, the study of the spruce in view of its value to the pulp industry and the encouragement of tree planting, especially on the Western plains, were urged as matters to which the Association should give special attention. The protection of the forests from fire is, however, the one important and immediate duty.

The Chairman, after referring in feeling terms to the death of our beloved Queen and regretting the absence of the President, who would have expressed in most fitting terms the great sorrow so universally felt by not only all her loving subjects, but by all in every land where truth and virtue are held in esteem, asked that a committee should be appointed to draft a suitable address of condolence to the Royal Family expressing our deep sense of their bereavement and coupling therewith a resolution of welcome and congratulation to our new Sovereign, King Edward VII., on his accession to the throne.

In accordance with the Vice-President's suggestion a resolution on these lines was adopted. A resolution expressing congratulations to the President on his appointment to the Lieutenant-Governorship of British Columbia was also passed and thanks were expressed to the press and the railway companies.

"Forestry in British Columbia," was the subject of a paper by Mr. J. B. Anderson, Deputy Minister of Agriculture for that province. The forests of British Columbia are of great extent and immense value. The most important tree is the Douglas Fir, *Pseudotsuga douglasii*, which extends practically over the whole of the province, except Queen Charlotte Island, up to an altitude of 6,000 feet. On the coast this tree frequently surpasses eight feet in diameter, and reaches a height of 200 to 300 feet, forming prodigious and dark forests. As much as 508,000 feet of good lumber have been cut off one acre in the Comox district. The other important timber trees are Red Cedar, Spruce, Yellow Cedar, Hemlock, Western White or Balsam Fir, Western White Pine, Western Yellow Pine or Bull Pine, Scrub Pine, Black Pine, Larch or Western Tamarack.

The principal deciduous trees are the Maple, the Broad Leaved species being a magnificent tree which frequently attains a diameter of three or four feet and has been known to cover an area eighty feet in diameter, the Alder, the Poplar, the Oak, the Birch, the Arbutus, the Dogwood, the Buckthorn, the Crab.

The average cut of lumber is easily 50,000 feet per acre. The acreage in the timber limits occupied, according to the figures of 1893, was 400,000, and at an average of 30,000 feet to the acre, this would give 12,000,000,000 feet. At an average yearly cut of 100,000,000 feet, the present limits would last 120 years. It is estimated that fire destroys fully fifty per cent. of the timber. This would reduce the time to 60 years. If, as is probable, the output is trebled, the time would be still further reduced to 20 years. If one-third of the limits of the province are taken up, the total area would be 1,200,000 acres, giving 60 years for cutting. Natural growth would increase the amount, but fires will be a chief element of destruction. The appointment of Forest Rangers seems to be the only possible means of controlling fire, but in an immense and undeveloped province like British Columbia would be very expensive to operate.

A paper on "Forestry on Dominion Lands" was read by Mr. E. Stewart, Dominion Superintendent of Forestry. Mr. Stewart pointed out that the area of land controlled by the Dominion is about three times the total area of the older provinces and comprises a large area of wooded country as well as the barren land of the north and the prairie region. The most important tree in the forest districts is the Spruce.

The first step taken by the Forestry Branch was the organization of a fire protection service. Forest fire rangers are selected from men residing in or near the district where they are to be employed. They are under the direction of some permanent officer in the land agency, and when this officer considers their services are required he notifies them to commence work, furnishes them with a copy of the Fire Act, a copy of general instructions and notices for posting up warning the public against the careless use of fire. By this system the ranger is employed only when his services are considered necessary, and in case it is very wet he may not be employed during the whole season.

The other special line of work, which is being arranged for, is tree planting on the plains. Efforts have been made in the past by the Government to encourage tree planting, but not much success has been achieved owing (1) to bad planting;



(2) to trees being planted in land not sufficiently prepared; (3) to lack of cultivation. The system now proposed for dealing with the matter is to supply seed and cuttings to the settlers, as far as possible, and to give Government supervision in tree planting and cultivation. The supervisor will examine the land and furnish a sketch to the settler showing the best position for wood lot or shelter belts, with directions as to the proper trees to be set out and the best methods of doing so. An agreement to this effect will be made between those applying to take advantage of the proposal and the Government.

The plan outlined by Mr. Stewart was discussed and commented on very favorably. Hon. T. A. Bernier, who is a resident of Manitoba, considered it a very important step forward in the interests of the settlers in the West.

Mr. William Pearce read a paper which had been prepared by Mrs. Zina Y. Card, of Cardston, Alberta, on "Forestry on the Prairies." Mrs. Card has had experience with tree planting in Utah and pointed out that in that State, where every city, town and village is a wilderness of trees, it is not difficult to produce them, for the irrigation canals which are so generally constructed supply the necessary moisture to make the task an easy one. At Cardston the native trees have been found most successful, and no trouble has been experienced in transplanting in the lower locations, if the necessary moisture is given at the proper time. The conclusions reached are in the main those of Mr. Wm. Pearce, that native trees should be planted first and should be obtained from a place where the conditions as to exposure, wind, elevation, etc., are as nearly as possible the same. Evergreens have not so far been found successful, but the Manitoba Maple has succeeded when hedged and also the Black Willow and Basket Willow to a limited extent.

Mrs. Card suggests that the establishment of a tree farm on a small scale in the district would be of great advantage in advancing the work of tree planting there, and also mentions the opinion of some of the members of the Association that an agricultural magazine would fill the requirements of their district better than the present official organ.

The largest membership of any district next to Ontario, is in Alberta, and this is due to the exertions of the Vice-President, Mr. Wm. Pearce, aided by Mrs. Card, who has been influential in securing a large number of members for the Forestry Association in Southern Alberta.

In the afternoon a paper on "Timber Lands in New Brunswick owned by the Crown," by Mr. W. P. Flewelling, Deputy Surveyor-General, was read. The Province of New Brunswick contains an area of 17,000,000 acres, of which 7,500,000 acres, mostly timber lands, are still controlled by the Government. About 6,000,000 acres are under license. Formerly timber licenses were for one year, then three years, and now twenty-five years. The greater length of tenure ensures a more economic management of the forest. In order to prevent indiscriminate cutting of spruce and pine the regulations provide that no tree shall be cut which will not make a log ten inches at the top eighteen feet up. In the present great demand for pulp wood many private owners allow the cutting of spruce down to four and five inches in diameter. Spruce grows rapidly in New Brunswick. It has been known to grow from the bud and make a merchantable log in thirty years.

Many large holders cut in strips of  $1\frac{1}{2}$  to  $1\frac{1}{4}$  miles in width and five or ten miles long, allowing a rotation of five to seven years.

New Brunswick has suffered largely in the past from fires, but stringent fire laws have been passed and fire wardens are employed to travel through the forests in spring and fall.

This was followed by a paper by Mr. John Bortram on "The Economic Management of Pine Forests." While admitting that it was the most profitable for Southern Ontario generally to devote her lands to agricultural purposes, attention was called to the fact that in many localities there were pieces of land that could better be kept in timber.

But the great region where pine is most profitable is the Laurentian ridge running across the central portion of the Province. What policy should be pursued to obtain the best results with the least expenditure?

The various types of forest were considered:—

1st—Where White Pine is predominant, but well mixed with other woods. The management of such a forest would not be difficult, as the principal point to be aimed at would be to keep out fire so that the pines would be allowed to reach a sufficient age to reseed the ground, and they would find the proper conditions for reproduction in the shade of the poplars and white birch.

2nd—Where the forest is composed mainly of pine, but mixed with other conifers and a sprinkling of hardwoods. Large hemlock and spruce should be cut and marketed as soon as possible. No pine tree should be cut under twelve inches in diameter except for thinning. Care should be taken to preserve the canopy of the forest, while at the same time admitting enough sunlight for the growth of the seedlings. The practice of using young pine for crossways, bridges or skidways, or even to put up buildings, should be prohibited, just as the cutting down of all varieties not wanted should be discouraged.

3rd—Where the forest is composed mainly of hardwood, mixed with large pine trees. Except yellow birch, the hardwood is seldom very valuable for lumber in the north and is often too far from a railway to make cordwood. All pine trees in an exposed situation, whence they would seed a large area, and all defective trees should be retained, while the hardwood is cleared sufficiently to permit the pine to grow.

4th—In the case of a forest, where the timber is all within fifteen or twenty years of being the same age, it would be necessary to cut close, but only within certain defined areas, leaving seed trees. The small trees could not stand against the wind if only the larger were cut.

5th—Where hemlock, spruce and balsam are the prevailing species, mixed with hardwood and pine. Probably the best method would be to mark off an area, have a space cleared round where fire could not go, cut all or a portion of the large pine, all the hemlock and spruce of market value, and set fire to the remainder on a favorable opportunity.

The most difficult question is the reforestation of the areas which have been burnt over again and again. Young pine standing in such districts should be guarded as a nucleus for future seed distribution, and, where none such exist, small patches suitably situated for the distribution of seed might be selected and seeded. These would reproduce themselves. The pine bears seed at an age from 25 to 30 years and the seed may be distributed up to a mile or even more. The region to the north of Lake Superior is one where this effort should particularly be made.

Mr. J. C. Langelier, Superintendent of Forest Rangers for Quebec, gave a paper on "The Pulp Industry in Relation to our Forests." The increase in the value of the products of the pulp industry, as shown by the figures of the census of 1891 compared with those of 1881, being from \$63,300 to \$1,057,819, or 157 per cent., raised the question in many minds as to whether this new industry was not destined in a short time to ruin our spruce forests. Mr. Langelier wished to take up the question as to whether these fears are well founded.



By the census of 1891 the quantity of spruce consumed for all purposes in the four older provinces of the Dominion was 5,146,236,287 feet, including 57,475,000 feet of pulp wood in Ontario, 65,599,500 feet in Quebec, 5,685,500 feet in New Brunswick, 1,667,000 feet in Nova Scotia, or a total of 130,409,000 feet for all. Taking ten times this quantity as the extreme limit of consumption, the sum of 1,304,000,000 feet would be given, which would manufacture 1,500,000 tons of pulp. This is very nearly the total actual production of the United States, the country in all the world which manufactures the most pulp and paper. With this quantity of wood the four older provinces could supply home consumption, ship a couple of hundred thousand tons to the American paper manufacturers and a million tons to Great Britain, France and other European countries. At an estimate of 5 000 feet of pulp wood to the acre this would take the product of 260,818 acres.

The present area of the forest may be estimated at 219,259,958 acres, so that the time required to exhaust the present supply would average about 1000 years.

But the other demands on the spruce forests would require 11,318,844,574 feet yearly, requiring the product of 2,264,342 acres, which would reduce the period of exhaustion to 50 years for Ontario, 173 for Quebec, 41 for New Brunswick, and 38 for Nova Scotia. It is a well known fact that where operations are carried on in a wise and provident manner a spruce forest renews itself in fifteen or twenty years, so that the spruce forests are practically inexhaustible, inasmuch as the needs for home consumption of the lumber trade and the pulp industry are below the capacity of production and reproduction of the forests.

The dangers to the forest are: first, fire; second, the abuses committed under pretext of colonization; third, wastefulness in lumbering operations. An idea of the destruction by fire may be obtained by the statement that the value of the timber destroyed by this cause in the forests of Lake St. John, St. Maurice and the Ottawa could pay the whole debt of the Province of Quebec and still leave several millions to spend in developing its resources.

Under the pretext of colonization, lands which are only fit for timber are taken up for agricultural purposes and the timber is destroyed by wasteful methods of cutting and by fires started for the purpose of making clearings. Large areas are thus taken up which do not yield enough for agricultural purposes to make it possible to exist upon them.

The revenue from 545,955 acres of land under cultivation in Quebec timber counties is \$4,076,773, and at the permanent yield of 2,500 feet of merchantable timber the revenue would be \$6,824,440. Converted into pulp the result would be \$33,439,695. The amount paid in wages for the manufacture would be \$6,960,920, which, at \$1.25 per diem would represent 18,560 men, and 156,000 souls who would be supported. The value of the farm produce from these lands would be \$7.36 per acre, and of pulp would be \$61.25 per acre. The danger from lumbering operations is the cutting of trees down to a small diameter, as low as three inches, principally for export. This destroys the forest and leaves no means for its reproduction.

A great advantage of the pulp industry is the fact that it permits of the use of a great deal of small and poor timber which was formerly altogether refuse matter, thus increasing the productive value of the forests by twenty per cent.

Dr. James Fletcher, Dominion Entomologist, spoke on "Forest Insects." He said that in connection with horticulture the treatment of insects had become systematized. The insects that destroy with their jaws are treated one way, and those

that suck the sap in another. In regard to the insects that infest the forests, the treatment of trees once injured must be decided upon quickly by the forester. Fire is one thing that gives our entomologists work to do, as the insects attack fire-killed timber immediately. Some bore in the bark and others right into the wood. As it has been found that these beetles go through their changes in one year, a forest burnt over in August must be cut before the first winter. "Rossing" logs, or the taking of a strip of bark off in order to admit air and moisture under it, is a method adopted to prevent the workings of the bark insects, also the covering of the logs with evergreens as the beetles are sun-loving creatures. Dr. Fletcher exhibited a number of specimens of the insects referred to, and also showed a hickory axe handle which had been destroyed by the powder post insect.

A paper by Dr. W. H. Muldrew, of Gravenhurst, Ontario, on "Forest Botany in the Schools" was submitted. The results which might be expected from a course in Natural Science are (1) a marked strengthening of the faculty for rational observation and comparison, with a corresponding gain in the ability to draw logical conclusions; (2) an organized body of knowledge concerning some department of nature; (3) an interest in nature based on such knowledge and impelling to continued observation and study. To obtain these objects knowledge and interest must be interwoven. Dr. Muldrew's conclusion is that the native trees present the best point of interest for an introduction to the study of Elementary Botany. As the floral organs of trees are usually inconspicuous, they are often overlooked in the ordinary course of study, so that a knowledge of the trees is not usually a conspicuous characteristic in a botanical class. The leaf characters form the best introduction.

If the rising generation is to be trained to think intelligently about our forests, it must first be trained to know them. To attain this object a practical knowledge of our native trees should be required of teachers, and Forest Botany should be taught informally in our public schools and formally as a part of the science course in our high schools. A change in the tendency of the study of science in the high schools is towards the recognition of those topics that bear on the industrial life of the people, and in such an arrangement Forest Botany would be worthy of an honored place. The establishment of Arboretums should be encouraged for their educational value, as much as a collection of any other kind, while their advantages would be very great in other respects.

An interesting discussion on these papers was held.

Dr. C. A. Schenck, Principal of the School of Forestry and Manager of the Vanderbilt forest at Belmont, N.C., addressed the meeting during the day and in the evening delivered a lecture in the Assembly Hall of the Normal School on "Governmental and Private Forestry," the substance of which is as follows:—

"The lovers of the American forest have been labouring over the forestry problem for a number of years. In the meantime, the owners of woodland have continued to solve the problem in their own way by converting trees into ready money. Only a few cases are on record, in which private individuals have practiced conservative forestry—evidently without knowing what they were doing.

Obviously as long as the gigantic trees of the primeval forests cannot be approached, as long as the expense of transporting the timber to the market surmounts the price obtainable for it, the owner of the forests cannot actually practice forestry. Later on, when the country has been opened up by railroads

and navigation, the cost of marketing the trees is reduced and stumpage begins to command a price. From that moment on, it will pay to use the forest.

Obviously the virgin forest should not be preserved; the virgin forest is unproductive; the annual production of woody tissues is exactly offset by the annual death and decay of timber. If such were not the case, our virgin woods would get so dense in the course of the years, that neither deer nor man could penetrate them.

In the well-managed forest, the mature trees are removed, and just that much timber is left on every acre as suffices to fully digest sunshine, rain and air, the food of the forest.

Enthusiastic advocates of forestry have often deplored the disappearance of the forests from the very land where they used to grow most luxuriously. I refer to the rich land along the river bottoms. To the cause of forestry, this enthusiasm has done more harm than good. Mere commonsense prescribes the rule that every acre of ground shall be devoted to that production, under which it pays best. The most fertile land is justly claimed by agriculture and pasture; forestry must be properly relegated to land unfit for field crops or to a rough climate where wheat and corn are apt to fail.

In this country, the immigrant cannot possibly foretell what forest land, being of a truly agricultural character, should be cleared and used for farming, and what wooded tracts, under the prevailing conditions of soil, climate and means of communication, should be left to the production of timber. Some paternal supervision, some amicable foresight must be exercised by the government, and only such land—on the other hand all such land—must be delivered to the plough, on which farming pays better than a second growth of trees.

The question will be asked: "Does forestry pay at all?" Pointing to European or to Indian experience, the forestry scholars used to prophesy, that large and rising returns can be safely expected from forestry. To the unprejudiced observer it seems strange that the American wood owner, the lumberman, is far from sharing the scholars' opinion. The American lumberman, standing in the foremost rank of successful business men, proves by the very success of his business that in this country—aside from exceptional conditions already cited—forest destruction pays better than forest preservation.

Forestry as an investment is unsafe as long as fires cannot be prevented from destroying the forest. Where protection from fire is absolutely assured, a second growth of trees, in my opinion, cannot be prevented from developing.

Thus, if the people of this country care to engage in a far-sighted policy, if the providential functions of government relative to forestry are understood, let them furnish laws and a salaried staff to enforce these laws by which forest fires are prohibited. Then only we can expect private forestry to be practised, because then only private forestry is a safe and remunerative investment.

For the Dominion and the Provinces, in their capacity as forest-owners, similar considerations hold good. Both are in the lucky position of owning large and compact tracts, so that the expense of protection, per acre of land, is greatly reduced. Both have the power to enact laws suiting the task, with a view of perpetuating the forest whilst using it. At the same time, the interest of the commonwealth demands that no acre of virgin forest shall be touched, unless the land is fit for farming, or unless the forest, during and after lumbering, is fully protected from fire.

Forestry means "the proper handling of forest investments." Forestry intends to transform unproductive woodland

into a capital yielding large revenue. The forestry investments are cut down, on the one hand, by the removal of mature timber, and are increased on the other hand, by creating a system of floatable streams, of forest railroads and wagon roads. By these means the farms and pasture grounds—possibly the mines as well—scattered throughout the forest are made simultaneously accessible and more valuable.

If by regulating, by handling the forestal investments properly, the manifold losses can be reduced which threaten navigation, water supply, irrigation, agriculture, public health, property destructible by floods, then every penny saved by such handling and regulating is a penny legitimately earned by forestry. In other words: the gross returns from forestry practised by the commonwealth are not tangible goods only; the yield of the forest consists, to a large extent, of safety, of assistance, of insurance furnished to the people and to their industrial vocations.

The development of Canada's gigantic forest reserve must necessarily be slow. When it is accomplished, after the lapse of another century, Canada may supply the entire world with timber. If in the year 1750 a prophet had dared to foretell the actual happenings in German forestry, he would have been laughed at by all intelligent people. At that time square miles of forests could be bought at the price now fetched from the sale of a single oak tree in it.

In Canada, if the population continues to increase, if the facilities of transportation continue to be developed, the price of pine stumpage, 80 years hence, might be \$20 per thousand feet b.m.—the price now prevailing in Germany and France. If such are the prospects, Canada will be the richest country on earth before the dawn of the next century, provided that she continues to manage conservatively her forest resources; again, if such are the possibilities, we should at once proceed to reforest every acre of ground unfit for the plough but fit for timber production.

At the conclusion of the lecture a vote of thanks to Dr. Schenck was moved by Mr. Geo. Johnston and seconded by Dr. Saunders. The Forestry Association are much indebted to Dr. Schenck for his kindness in attending the meeting and giving so much valuable information to the members.

A full report of the proceedings, including the papers read, will be prepared and a copy sent to each member of the Association.

Owing to the lengthy report of the Annual Meeting other matters to which it was intended to give attention, particularly Arbor Day, have been crowded out.

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### The Planting of Shade Trees.

By W. T. Macoun, Ottawa, Ont.

Every year, at the approach of spring, the desire to plant something grows strong in the breast of all lovers of trees, shrubs and plants, and as there are a very large number of such persons in Canada, it would not be long before the streets and gardens of our cities and towns would be a perfect paradise of leaves and blossoms, if all the good intentions born in the waning days of winter and the early days of spring were put into practical form. Unfortunately, many plans which are made are never carried into execution, or, if they are, failure is the result through lack of knowledge and often through sheer carelessness.

The following notes on the planting of shade trees may prove useful to those who really intend to plant some, but who may think that it is only necessary to get them and plant them

at the desired distance apart, with their roots below ground and their trunks in an upright position in order to have them all grow and become beautiful shade trees. A large proportion of small trees from one to two feet high might grow if treated in this manner, provided the roots were not too dry before planting, but trees for avenue or street planting have to be cared for differently.

A tree when it is growing in the forest or nursery is provided with a large number of root fibres through which sap and plant food are carried up into the trunk and branches of the tree. When a tree is dug a large number of these root fibres are destroyed, and when a tree is dug as are many of those which are planted along our streets there are few fibre-left. It is not possible for a tree to receive much moisture from the soil through the larger roots, and if it is planted just as it came from the woods without pruning back the top, it is quite likely to die.

Frequently, after trees are planted, they develop leaves and live for part of the summer and then die, there being enough sap in the branches for this purpose without the tree receiving any through its roots. During the spring and early summer following the great destruction of peach trees in south-western Ontario in the winter of 1898-99, large numbers of trees whose roots were rotting in the soil bloomed and leafed out before they died. One is, therefore, never sure that a tree is going to live until the season after planting. A tree, then, should have as many root fibres as possible. The branches should be cut back at the time of planting in proportion to the amount of root fibres the tree possesses. The man who wants trees for avenue or street purposes which will develop a natural top should get them well provided with root fibres and then instead of pruning his trees to a bare pole, only shorten in the branches somewhat. The practice of sawing all the top off the trees which are used for street purposes is not far wrong, considering the fact that those usually planted are those which have been dug and torn up in the woods with very few root fibres left on them. A larger percentage, however, of these trees would grow if a few of the smaller branches were always left on the trees. Although there are dormant buds along the trunk of a maple or elm, the kinds of trees usually planted, there are often so few root fibres through which sap may be carried up into the tree that there is not force or sap enough to develop these buds, encased as they often are in the hard wood, and the tree in the meantime dies. If, however, some smaller branches are left, leaves are developed, and when the sap rises from the roots, growth goes on steadily.

When the whole top of a tree is left on at the time of planting there is great danger that when the leaves develop by means of the sap which is stored in the branches, there will be so much moisture transpired into the air by them that the sap in the tree will be exhausted before the roots begin to pump up more, and it dies. This is the fate of very many trees.

Maples and elms stand very rough handling when being transplanted, maples particularly. In many cases the roots are exposed to the sun and drying winds for a long time before the trees are planted, and although when trees are exposed to this treatment, they often live, in many cases this is the cause of their death. How could a tree be expected to live when all the root fibres are dried up?

When trees are planted, a hole should be dug large enough to contain their roots when spread out to their full extent, and if the hole is larger than this the results would be even better. The hole should be made deep enough so that the tree when planted will be a little deeper in the soil than it was in the forest or nursery. Many trees die because the roots are

crowded into small holes. This is especially the case in heavy soils where, when the roots are thus crowded, it is extremely difficult for them to push into the surrounding earth.

The soil in which shade trees are planted is often very poor, the excavated material obtained in laying the foundations of buildings being frequently what they are planted in. When the soil is of such a character it will help the tree to make a quick start if good soil is drawn to replace that which is taken from the hole. If the surface soil is good and that underneath poor, the former should be kept in a separate heap when digging the hole, and it should be thrown in first when the hole is being refilled. It is always best to have the trees planted in good soil. The soil is at first sifted in among the roots, and when they are covered by it, it should be tramped so that it will come in close contact with the root fibres. The soil is tramped several times while filling the hole. As a rule it is not necessary to use water when planting trees, and sometimes when it is used the soil puddles or becomes hard and encases the root fibres, preventing them from growing.

Trees should be protected after they are planted, with wooden or iron protectors, to prevent injury from horses or cows or from boys swinging on them and loosening, by wind. They should be put on the tree immediately after planting.

There is no doubt that many of the shade trees in our cities are dying from lack of air and moisture at their roots. This is due to the fact that many of the permanent roadways or streets are made almost or quite impervious to air and moisture, and if a tree is to thrive well, air should freely penetrate the soil, there should also be a fair amount of moisture in it. In many places most of the rain which falls runs away before it can soak into the ground. By planting the trees on the lower or boulevard side of the footpath the roots will obtain more moisture.

Two of the best trees to plant for shade purposes are the hard or sugar maple and the American elm, the latter being particularly suitable for avenues. The Norway maple is also a good tree for street planting, as the foliage is very dense and it is a rapid grower. The red or soft maple is often planted also as a shade tree, but as this is a moisture-loving species it does not stand much chance where there are granolithic sidewalks and asphalt street pavements, and will not under such conditions prove satisfactory. The pin oak is being now highly recommended as a shade and avenue tree and it has certainly many good points in its favour. When well established it makes a good annual growth and soon becomes very ornamental.

The distance apart at which trees should be planted will depend much on circumstances. For street planting, where shade is the chief desideratum, they will be planted much closer than when used for avenue effect principally. When used as avenue trees, elms should not be planted less than forty feet apart, though thirty feet would be sufficient for maples.

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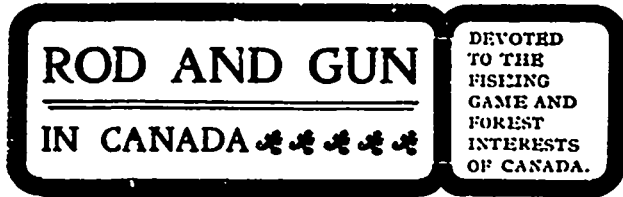
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The situation as regards game protection and the framing of additional good common sense legislation, is very bright in this Dominion of ours. Coming events cast their shadows before, and it is not a breach of confidence, nor a revelation of any secret of state, to say that changes are probably about to be made in the game laws of Quebec and Ontario which will work wholly for good. Premier Parent is understood to be fully persuaded that one moose should suffice any reasonable sportsman each year, and that two caribou and two deer are enough for any moderate man. There is hope that the powers that be in Ontario now, realize that under their control is one of the largest and best stocked moose ranges in Canada, and that they may safely permit hunting by sportsmen during a fairly long open season each year. The game protective authorities of Ontario are men of excellent intention, and if they have satisfied themselves as to the correctness of the statements that were made during the last meeting of the North American Protective Association, we may be sure that they will not be long in framing more liberal laws than those that have heretofore existed.

The twelfth annual report of the Tourilli Fish and Game Club of the Province of Quebec has been issued. It is unnecessary, perhaps, to say that the club is in a very flourishing condition, and that there are no signs of any shortage in the game supply within the limits controlled by the Association. This club, in addition to the usual game, fish and animals, proper to the latitude of its preserve, is supposed to possess a new trout, *Salmo marstoni*, so called after the editor of the English Fishing Gazette. How far *Salmo marstoni* differs from *Salvelinus fontinalis*, and whether it be a salmo or a salvelinus, are matters which concern more closely the learned pisciculturist than the practical fisherman. The members of the Tourilli club have great stories to tell of the fighting powers of the *marstoni*; they say that it has all the qualities of the land locked salmon and the charr, while it has even more endurance than the former. Unfortunately, however, this peerless warrior does not seem to take readily to the fly excepting during June, when it will take a fly that is "bobbed" on the surface of the water. Bait fishing is unsuccessful and even the deadly nightline is avoided by the crafty *marstoni*. Like other

great warriors, however, this inhabitant of the Tourilli waters has its weak point, and a small gilt spoon in September frequently proves fatal.

The occurrence of this lately discovered charr in Lac du Marbre and the west branch of the Ste. Anne's, should remind us that there are many waters in Canada holding fish as yet unknown to science. It ought to be the bright prerogative of the honest and enterprising angler to act as the middle man between these remote waters and the naturalist's table at the biological station. The biological expert is, as a rule, unable to spare time to explore distant waters, hence the peripatetic fisherman may easily be of some service to his time and generation by preserving specimens that he may take in regions remote from the madding crowd, and submitting the same to some competent authority on his return to civilization.

ROD AND GUN has been favored with a very useful little treatise on camping in Canada, written by Mr. George G. Cotton, Syracuse, New York. This is an enlargement of something that he gave to the fraternity a year ago. Last autumn Mr. Cotton was the leader of a large and successful camping party into the wilderness east of Lake Kippewa, and the added experiences which he got in 1900 he has placed at the disposal of his fellows early in 1901. While it would be very much to the advantage of our readers to give Mr. Cotton's remarks verbatim, we cannot do so this month, but in a future issue room will be made at some length for what he has to say.

Mr. C. K. Sober, Game Commissioner of Lewisburg, Pa., has favored this magazine with a paper entitled "Some Objections to House Bill No. 43." As we have not had the pleasure of reading any Pennsylvania house bill that we know of, our opinion as to the merits of No. 43 is not particularly valuable. We have, however, read very carefully the "objections" that Mr. Sober has sent us, and apparently these are well taken.

It seems that this gentleman's colleagues advocate the sale of upland plover, rail, reed birds, doves, black birds, wild ducks, geese, brant, swans, coots, mud-hens, snipe, sand pipers and curlew between September first and April first, inclusive. Mr. Sober says: "Possibly spring shooting may, in the opinion of some sportsmen, be a short-cut method of protecting the numerous species of birds included in Section 2 of House Bill 43. I do not, and am averse to such methods of protection." A good many sportsmen will agree with Mr. Sober. Such methods of protection are akin to that of the English poacher, who, whilst he was returning in the grey dawn from an unsuccessful expedition found a little curly-tailed pig wandering along the highway. "What!" said our friend, "you ain't got nobody to take care of you; then I'll take care of you?" and the cavernous darkness of the huge pocket in his velveteen coat swallowed up the little piggie.

## Are You a Fisherman?

Probably; hence we make the following offer: If you will send in the names of six of your friends, sample copies of ROD AND GUN IN CANADA shall be mailed to them immediately, and should any of them subscribe we will send you half a dozen choice trout or bass flies at each subscription received.

These flies have been selected carefully by an experienced fisherman, and will prove as killing as any in your book—perhaps even more deadly than those you have used heretofore.

**Rod and Gun Publishing Co.**

603 Craig Street  
Montreal

## THE GUN

Conducted by "Bob White"

### SPARROW SHOOTING.

Sparrow shooting at the traps is becoming a popular pastime and certainly is a clean and enjoyable sport. Shooting at "mud pies" is apt to get a little monotonous, not to speak of the expense when you spend the day throwing 3 cent loads after 3 cent targets. Pigeon, also, is expensive and unfortunately has a certain amount of public sentiment against it. Sparrows on the other hand are looked upon by nearly every one as an unmitigated nuisance and their destruction advocated.

The trap shooter therefore, feels as he grasps his bird, that he is not only exhibiting as great skill as if his mark were a twister of a larger size, but he also has the comfortable feeling of doing his country a service in trying to keep down the numbers of these "Avian rats."

The birds are usually shot at 21 yards rise, 30 yards boundary, from three or more ground traps. But as in other things, to enjoy your bird you must first catch him. He has more brains

than the size of his little body would indicate, and will look with a great deal of suspicion on any form of trap set for his capture. The most effective way of gathering him in, is by the use of a net at night.

Having caught him, you must give him plenty of elbow room, for the novice will be surprised to find how hard it is to keep the birds in good condition. He should be kept in a decent sized room, with lots to eat and drink, until an hour or two before the shoot. Close confinement will kill a healthy sparrow in a few hours. One is surprised at this when you consider what a tough little rascal he is, ordinarily. If you enjoy live bird shooting, try some sparrows and you will agree with me that it is the "real thing."

#### International Team Shoot.

An international target contest is on the carpet, to take place this summer in England, between a team of ten trap shooters from the United States and an equal number from England,

Ireland and Scotland. [Messrs. Ely Bros., of London, who are conducting the British end of the negotiations, propose that the contest be held under the following conditions: Best three matches in five; one hundred Ely targets to each man, each match thrown from Ely expert traps. I. B. S. A. rules to govern, except that targets must be thrown not more than 60 or less than 40 yards, nor lower than 6 feet, nor higher than 12 feet at a point 10 yards from the trap. Match to be for \$5,000 a side, English team to take the gate receipts, but to pay American team \$2,500 for expenses, if it loses. American team to use one barrel only; English team both barrels.

Such well-known professional trap shots as Fanning, Crosby, Gilbert, Parmalee, Elliott, Budd and Heikes have been proposed for a place on the American team, with the Hon. Thomas A. Marshall, also, who has been constituted manager.

We are not aware that any English team has, as yet,

consented to enter the contest. It may be difficult to get the English amateur to enter the lists against a team composed almost entirely of professionals, such as those named, but if he does he can be assured of one thing, he is up against a pretty warm proposition

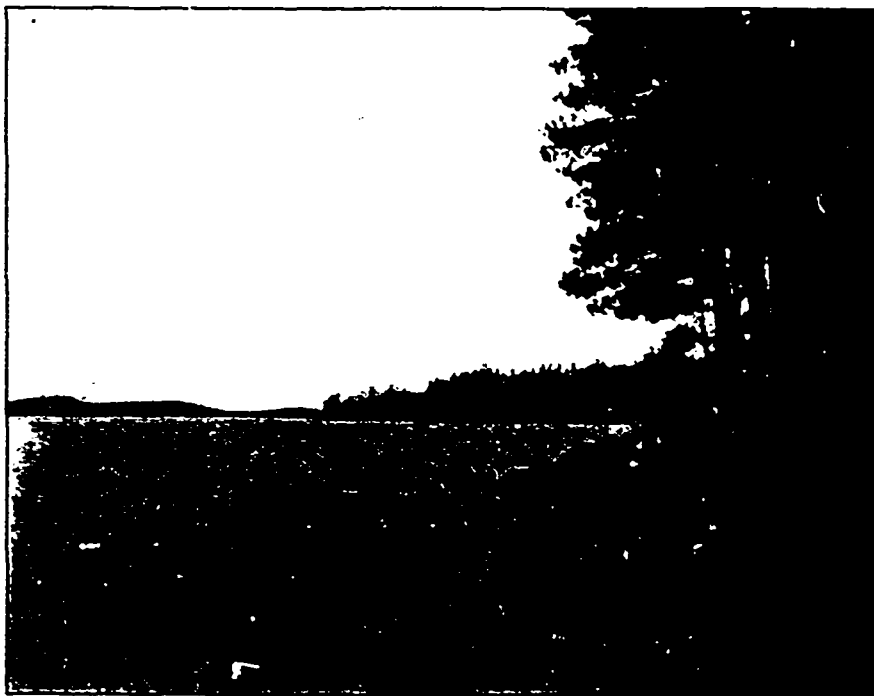
#### Stray Shots.

At Denver, Col., on March 7th, A. B. Daniels successfully defended the Sparling medal from three other contestants, by making the remarkable score

of 100 straight targets out of a possible 100. Prior to the match Mr. Daniels shot at 100 targets for practice and scored 98, making a record for the day of 198 out of 200, certainly a very fine performance for an amateur.

At Kingsville, Ont., on Mar. 9th, E. C. Clark, Detroit, Mich., defeated J. Pastorius, Kingsville, in a contest at 25 live pigeons, for possession of the King trophy, held by the latter. The scores were: Clark, 21; Pastorius 19. Mr. Pastorius has challenged his successful opponent to another match at pigeons, and it will be shot off at an early date.

The Interstate Association's tournament at Sherbrooke, P. Q., July 1st and 2nd, under the auspices of the Sherbrooke Gun Club, promises to be one of the most important trap events in Canada this year. Canadian shooters should make a note of the dates and help to make the affair a success.



Whitefish Bay, Lake Temagaming, Ontario

At Interstate Park, Queens, L.I., on March 11th, Messrs. Heikes, Gilbert, Fanning, Crosby and Parmalee, each shooting at 25 targets, in one squad, made a possible, thus establishing a new world's record for a squad of five men.

Mr. Bates' success last year in winning the Grand American Handicap will probably stimulate other Canadian shooters to emulate his example. Canada has as good shots with rifle or shot gun as any other country, and only needs the opportunity to demonstrate the fact.

Capt. J. L. Brewer, the veteran wing shot, was given a benefit shoot at Dexter Park, L. I., recently.

The Westmount Gun Club held a well-attended shoot recently. Mr. J. K. Kennedy won the silver spoon, and N. P. Leach scored one more win for the challenge cup. The scores and handicaps were as follows: J. K. Kennedy (16), 27; W. J. Cleghorn (20), 16; N. P. Leach (16), 16; F. C. Nash (16), 16; F. J. Elliott (16), 15; W. Galbraith (18), 14; C. H. Routh (14), 13; F. G. B. Hamilton (16), 13; R. B. Hutcheson (16), 13; J. F. Hansen (18), 11; W. M. Hall (14), 11; C. Hes (14), 9; T. James (14), 6. For the Challenge Cup—N. P. Leach (16), 16; J. F. Hansen (18), 15.

Canadian trap shooters are about to organize a Dominion Trap Shooters and Game Protective League, and will hold a meeting at Ottawa, under the auspices of the St. Hubert Co. Gun Club on Easter Monday, April 5th, for that purpose. Arrangements will be made for an annual three days' tournament under the auspices of the proposed association, to be held at either Hamilton, Toronto, Ottawa or Montreal in turn. Matters of interest in connection with the protection of game will also be discussed. This movement of Canadian sportsmen is a most important one and cannot fail to stimulate the noble sport of trap shooting in Canada. It will also conduce to a more uniform and reasonable form of game protection. In the first issue of *ROD AND GUN* we expressed a desire to see some such league of Canadian sportsmen organized and we are glad to know there is some prospect of our hope being realised.

W. R. Crosby made a new world's record on single target at Interstate Park, N. Y., on March 13th, by breaking 345 straight blue rocks from a Magautrap. The best previous record was that of J. S. Fanning, who broke 231 straight at Utica, N. Y., last year. At the same place in a 100-target match, Parmalee and Gilbert each made a clean score.

The Hamilton, Ont., Gun Club have applied for admission to the Interstate Association. The Club at a recent meeting decided to have a series of fortnightly shoots, commencing Saturday, March 16th, the nine high guns to receive merchandise prizes aggregating \$100.00. The shoots will be at 25 targets, \$1.00 entrance including targets, members only eligible for a prize, handicap from 15 to 22 yards. The shooter who breaks 80% or better to go back one yard, if not at 22 yards, and to go up one yard if he fails to break 80%. Handicap committee, Dr. Overholt, T. Upton and J. Hunter.

At the New York Sportsmen's Show, held March 4 and following days, the best scores in the Continuous Match were Gilbert 139 and Fanning 114, without a miss. Crosby, Fanning and Banks each broke 99 out of 100, in the Association Championship Match.

## AMATEUR PHOTOGRAPHY

Conducted by Hubert McBean Johnstone

### THE EDUCATING INFLUENCES OF THE CAMERA CLUB.

By H. McBean Johnstone.

The amateur photographer who lives in a town or city where there exists a camera club, and who is not a member thereof, has indeed a worthy cause to feel ashamed of himself. To tell just why, it would be necessary to go over the advantages to be derived therefrom, and to do that would fill up a far greater space than I have here at my command. It is my intention, however, to outline briefly some of the worthy results that can be traced to the club in photography, and in doing this I suppose it would not be amiss to just remark on the social side of such institutions and to what an extent it will be a means of driving a worker to take up some particular class of work which he had hitherto not thought about. Undoubtedly it is a fact, that in more than half the cases, it is a chance conversation that makes a fellow specialize along some particular line that he has always had more or less of a hankering after, and yet has never thought of following it up in a photographic sense.

Then passing over the social advantages, we come upon the thing that most amateurs are really looking for when they become members, namely, the privilege of using the studio, dark room and laboratories of the institution. We all know, or have known at some time, the objections that the head of the house is apt to raise when she finds some stray hypo crystalized upon the carpet, and the dozen and one other little inconveniences of trying to do things without the proper facilities. The camera club effectually does away with all this, and at the same gives us an opportunity of mingling our sympathies with a half a hundred others who have passed through the same purifying flame.

To subscribe to all the photographic magazines that are published would leave us bankrupt, if, indeed, we could learn the names and addresses of them all to write to them. Here in the reading rooms we are provided with all the most up-to-date art and scientific matter that is considered by the committee to be of a sufficient high standard to admit. And it pays one to read the magazines, not only for the sake of the good sound practical instruction that is to be derived therefrom, but also to keep up to date as to what is going on in the photographic world.

Furthermore, in the club we are enabled to keep up to date on matters outside our own club by means of the lantern slide interchange, and are thus given a most thorough idea of what other similar organizations throughout the country are doing. And when we remember that in looking at a set of slides from some other club we are only looking at the cream of probably three times as many that were submitted, we can realize how great an opportunity we stand of picking up hints that will prove of assistance to us in the doing of our daily work. Then too, at the weekly meetings, when all the most enthusiastic members are present, ideas are always more or less interchanged and a steady flow of conversation regarding the interesting subject, will serve to keep us in touch with all that is going on in our own town. Truly, as a means of keeping up-to-date as regards photographic affairs, there is nothing that will surpass the club.

Occasionally those of us who are not club members will happen to run across some demonstrator at one of the photographic stock houses and have an opportunity of picking up a stray bit of knowledge. Club members here again have over us a decided advantage, for they are not condemned to have to trot out to such affairs, but if their institution is under the proper kind of management, they will have every demonstrator that comes to that city give a special exhibition before the club for the special edification of its members. Then too, while they are waiting for the demonstrator to come around, very frequently it is possible to prevail upon some of the older members to give a little talk that will be, to the tyro at least, perhaps more instructive than the utterances of the big man. At the regular weekly or monthly meetings, the reading and discussing of papers on photography and other kindred subjects by the members, is an excellent educational feature of such organizations and something that is perhaps of more practical benefit to the beginner than any point yet touched upon.

The great educating factor that lies at the bottom of it all, however, is that opportunities are offered to the member to compare his work with that of other members and the incentive that he thus gets to keep up his standard. In some clubs that I know, though I am sorry to say not all, the members hold every Saturday afternoon what they call a "field day." On this day all the active

workers of the club, turn out with their cameras and go in search of the pretty spots that lie in the surrounding district. Every member knows some pretty place and so each in turn has the guiding for the day. When a suitable subject is decided upon, which to avoid confusion is done by the member in charge, the whole party set up their instruments in any position that they may happen to like and biaz away at it, the result being that every member of the day's outing has an opportunity to study the scene from a dozen points of view at a comparatively small expense, and at the same time to grasp the impressions that a dozen other workers formed of it. Perhaps it is a mass of willows overhanging a swiftly running stream and just swaying backward and forward with the wind enough to touch upon the surface and disturb its smooth serenity; or perhaps it is a picture of a country road with its host of farm houses and out buildings dotting the country side as far as the eye can reach, while in the foreground is a flock of sheep or a herd of cows that break the

monotony of the whole. No matter what it may be, every member of the party has a chance to make his little study of it and then to have it informally criticised afterward by every other one who was present. Truly a sort of criticism that is conducive to successful work.

These are some of the benefits that belong to the camera club. Surely it pays to belong.

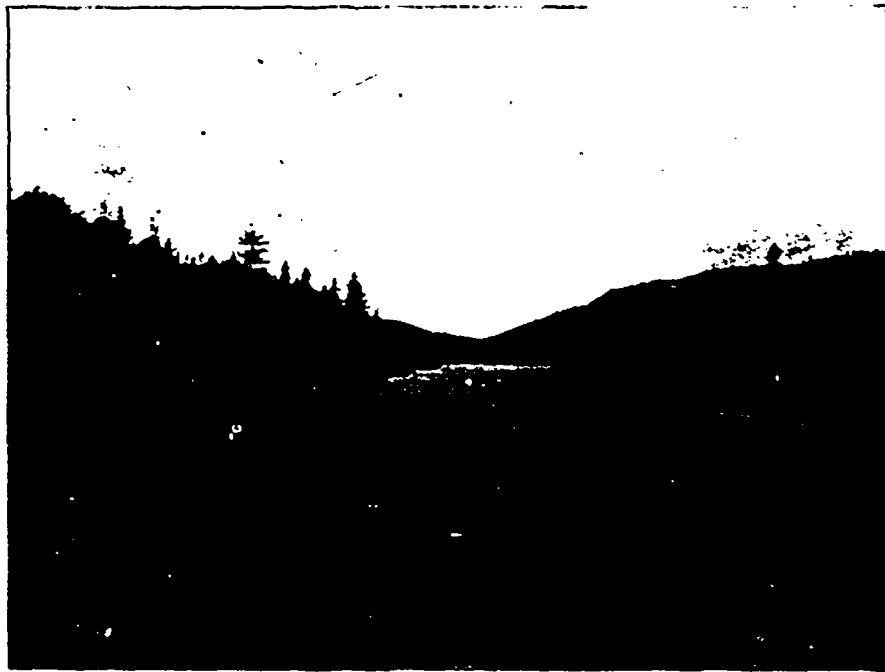
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#### On Coloring Lantern Slides.

At the present time, whilst there are camera clubs and photographic journals by the score, anything that could be said on the enjoyment to be derived from the making and showing of lantern slides would be so superfluous that the chances are it would hardly be more than glanced at, even by the veriest amateurs. Therefore, the purpose of this short sketch, is to outline briefly the various methods of coloring and tinting such slides.

It is a curious fact that, though thousands of slides are shown through the lantern annually, over fifty per cent. of them are harshly outlined in black and white, when a little extra time bestowed on each slide would enhance its beauty beyond conception.

Just a word on the development of slides that are to be colored may be interesting. Among the best developers, that used as the standard formula



Cache Lake

of the New York Camera Club ranks very high. The stock solution is made up of

Carbonate of soda .....	200 gr.
Sulphite of soda.....	200 gr.
Hydroquinone.....	50 gr.
Water.....	10 oz.

Cold black tones may be produced by a normal exposure developed with equal parts of stock solution and water to which has been added one or two drops of a ten-per-cent solution of potassium bromide.

A more diluted developer and from 10 to 20 drops of restrainer will give warmer tones, the rule being that the warmth of tone is increased with the amount of bromide used and the length of the exposure given.

In many cases, for instance in a seascape, it will be found that a slide will be improved by being tinged with blue, or perhaps even colored to a deep blue.



The following bath will secure this result :

No. 1.	
Sulphocyanide of ammonium.....	200 gr.
Water.....	32 oz.
Carbonate of soda (granular) .....	2 gr.
No. 2.	
Chloride of gold (brown) .....	15 gr.
Water.....	1 oz.

To use add four drops of No. 2 to two ounces of No. 1, and have bath at temperature of 74° Fahr. This temperature must be almost exact. Reduced slides should be toned only after they have been dried. The process of toning can best be judged by viewing the slide by transmitted day light, and when fully toned it will show a pure blue color.

The following bath produces Bartolozzi red tones :

No. 1.	
Ferrocyanide of potassium (yellow prussiate) .....	15 gr.
Water.....	16 oz.
No. 2.	
Nitrate of uranium.....	30 gr.
Sulphocyanide of ammonium .....	150 gr.
Citric acid (crys.).....	30 gr.
Water.....	16 oz.

To use, thoroughly soak the slide in water and then place in a bath composed of equal parts of stock solutions Nos. 1 and 2, where it quickly takes on a beautiful red hue. After this proceed to wash in the usual way.

To secure a bright green slide use :

No. 1.	
Oxalate of iron .....	20 gr.
Ferrocyanide of potassium.....	15 gr.
Water .....	32 oz.
No. 2.	
Chromate of potassium.....	5 gr.
Water.....	16 oz.

The slide must be placed in No. 1, until it takes on a dark blue color, when it is given a minute in No. 2 and then dried. This bath has the effect of slightly intensifying.

Another method of securing a blue tone is to take old, or presumably fogged, plates and soak in a bath composed of equal parts of the following until the gelatine is perfectly clear:

No. 1.	
Red prussiate of potassium.....	11 oz.
Water.....	16 oz.
No. 2.	
Hypo.....	1 oz.
Water.....	16 oz.

Thoroughly wash, and before drying place in a clean tray and flow over with a solution of

Citrate of iron and ammonia.....	1/2 oz.
Water.....	1 oz.

and after allowing it to remain in the bath one minute dry in the dark. Then print in contact with the negative in daylight until the shadows are slightly browned, a condition which can easily be seen by looking at the back of the glass. Now flow over with a solution of

Red prussiate of potassium.....	2 oz.
Water.....	8 oz.

When developed wash in clean water until high lights are clear. Any dry plate can be used, the silver salts being, of course, first removed by hypo, but the finished result is possibly more suitable for a transparency than a lantern slide. As transparencies, they are very striking.

A simple and easy method of transferring an impression, such as a title, from an engraved block or type, consists in making a kind of transfer paper on which the desired inscription is either written with indelible or waterproof ink, or else printed with ordinary printer's ink. To make the paper, take a piece of ordinary smooth paper and bend the upper left-hand edge upward at right angles about a quarter of an inch, and fasten with three pins on a smooth board on the right-hand lower corner of the same in such a manner that the two flat edges of the paper will extend a full quarter of an inch over the edges of the board. Coat the paper by flowing it over with a thin solution of insulating varnish made of raw rubber dissolved in benzole.

After this is dry, again coat with a thin solution of gelatine and dry. In order to transfer the inscription the paper should be trimmed, soaked a minute in cold water and pressed on the negative, the superfluous water being removed with blotting paper. When perfectly dry the back of the paper is thoroughly moistened with benzole, which readily dissolves the insulating film of rubber so that the paper can be stripped off, leaving the thin gelatine film, with the printing, on the plate. The printing will, of course, be reversed. The same paper may also be transferred to plain glass.

Now, in conclusion, a man possessing a series of slides would do well to read up extensively the history of each scene and then boil down the vital points into small compass enough to work upon the emotions of those present, who will feel that they are listening to a man with a mind of his own, and whose time is worth something.—H. McBean Johnstone in the Photo-American.

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#### The Scrap Bag.

Sometimes you want to intensify or reduce a negative that you have varnished and you've got to get that blooming stuff off. How are you going to do it? You have to do it thoroughly, because if you don't, streaks and blotches are going to form whenever the gelatine is not properly cleansed. All that is needed to ensure the complete removal, is to add .850 ammonia to the alcohol used to dissolve the varnish. Say one part ammonia to twenty parts alcohol. Put the negative in a dish with a sufficient quantity of the solution to cover it, and after it has been in for half an hour thoroughly swab it with a tuft of cotton wool. Then give it a good washing under the tap and you'll find that that will do the trick, O. K.

✱

I came across a good scheme lately in use by an amateur who did not want to spoil his bedroom window by putting up a lot of racks for his printing frames. In one corner of the frame he inserted a hook and in the corner diagonally opposite he put an eye. Then by means of a nail in the window frame, he was able to suspend the whole bunch up against the glass where they would get all the light there was.

✱

It's my experience that in spite of all that is said in favor of orthochromatic plates, not one amateur in twenty uses them right along. Everybody should. When one considers how by their use it is possible to secure such a wonderful wealth of detail amid the dark shadows of heavy foliage and what a great range of luminosity in tone value it is possible to secure, argument is unnecessary. And then think of the rendering of clouds. April and May are the months when, as Tennyson puts it, "clouds are lightest up in air," and the wise amateur is already considering the advisability of laying in a stock of orthochromatic plates.

Just at present, amateur camerists are allowed to take photograms at the Pan-American Exposition for twenty-five cents a day or seventy-five cents by the week. The price will be doubled on May first. Like the World's fair, the regulations will not permit of the use of a tripod or of a camera that takes pictures larger than four by five inches. Every amateur who takes in the Pan wants to remember to trot his camera along, and it will be a funny thing indeed if he does not find some snap-shots that will more than repay him for the trouble of carrying it.

\*

When you go into an exhibition and look at the photograms displayed, the first thing that strikes you is the large number of square and rectangular frames there are on the walls, and the extremely small percentage of round or oval shapes, if indeed there are any at all. There's no reason on earth for it. The rectangular frame, it is true, suits most pictures best, but very frequently indeed does one come across a rectangular picture that would look better in an oval, or some other odd shape and that is only put in a square cornered frame because it is customary. Now, there's nothing nicer than a circle or an oval, or a heart, a diamond, or something else, to frame a picture in, and when put on the walls it adds materially to the general effectiveness, breaking as it does, the abominable multitude of square lines and right angles that confront one. Why not use it oftener?

\*

How do you filter your solutions? Filtering paper? Suppose that instead you take a wad of cotton and put it in the bottom of your funnel and see how much quicker it is. For all solutions except gold and silver and pyro, you are going to find that it will answer just as well. I use it all the time.

\*

Very often you get a print that you would rather see on some other mount, and not possessing the negative, hate like the dickens to take it off, for fear you may tear it. Take the photogram and lay it face downwards on a sheet of clean glass, and then on top of it place a damp cloth folded so that the edges do not project over the edges of the mount. On top of it again place another sheet of glass and over all a heavy pressure. Let it stand over night and in the morning your print is ready to come off without any pulling.

\*

Once upon a time, when I bought my first camera, I used to be troubled with fog on my plates and could never account for it. Finally an older worker who had been similarly troubled, suggested that the root of the evil lay in my lens being dusty. Come to look, my lens was dusty. I cleaned it off and haven't been troubled since. Nuf sed.

\*

Did you ever make a carbon print and make it just a little too dark? Then it's no use and you have to throw it away. Well, say, it may interest you to know that ammonium sulphide will act as an efficient reducer in such an instance.

\*

A while ago I paid a visit to Niagara Falls to take a look at the ice bridge and see the greatest "freeze-out" on the continent. While I was there—a matter of perhaps half an hour—I'll venture to say that twenty-five kodakers rushed up and made snap-shots of it. Fully half of them wore on their faces the look of "you press the button, we do the rest" fiends, and it set me to wondering what their results were going to look like. They turn the film over to a photographer to be developed and he takes it and runs it back and forth through a

tray, never cutting them apart, and never paying any attention to the fact that right along side the picture of the Falls is an under-exposed interior and on the other side of it another one over-exposed. Now, what kind of results can such fellows hope to get? They know perfectly well that they want proper gradation and half tone with correct contrast between the snow and the sky. And how the dickens can they hope to get it when the whole bunch is run through all at once? Why in thunder don't they do their own work, anyhow, and have it done properly? Every man's his own best servant.

\*

When you have to make an enlarged negative, you will find it advantageous to use a backed plate always, and more especially so should it happen that there are strong lights in the picture to be copied.

\*

A few years ago I was a member of a camera club that made a boast that it limited its membership to twenty-five, and I'll venture to say that never did twenty-five more enthusiastic members find themselves linked together without any such drawbacks as "laggers" or "hangers on." But what I want to tell you about was the field day we used to hold every Saturday afternoon, and incidentally I would like to ask why it is that present day camera clubs in America don't hold field days? There is absolutely nothing under the sun that is calculated to raise the standard of work turned out by a club quicker than a good weekly field day, for on such an occasion the members all have a chance to study the one subject each from his own particular stand-point, under any conditions he may like, and then afterward to compare his result with the impressions of half a dozen other chaps on the same subject. Truly this is conducive to successful work.

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I wonder why so many amateurs waste their good hard iron louis in buying such things as hypo eliminators. I ran across a fellow a day or two ago using one. "Ges!" I thought, "you must have more money to burn than I have." All that he needed to do if he wanted a quick print was to hold his negative under the tap and wash it off with a large tuft of wet cotton. In three or four minutes he can dry it and it's all right. Now, what's the good of a hypo eliminator.

\*

Now the question comes, how do you make paste? Ah! that's the sticker. You don't make it? You buy it? Well then here's a way to make it. Take about a tablespoonful of starch and put in a cupful of cold water and then stir it till it's well dissolved. Pour the mixture into a small saucepan that you can put on a gas stove and after dumping in about a cupful of flour pour in a couple of cupful of boiling water, and while stirring quickly, hold it over the heat until it commences to thicken. Don't let it come to a boil, or it will be hopelessly spoiled. As soon as it commences to stiffen—a condition which can be easily judged after a trial or two—put it outside and let it cool. Now it's ready for use, but you can further improve on it by turning it out on a piece of cheesecloth and gathering up the ends, squeeze it through to take out any small lumps. Here you have a first-class paste for about a cent that ought to last for a week. Pretty cheap, isn't it, eh?

\*

In using "Agfa" for intensification or isochromatic plates you will find that you get better results if you use a little more water than the formula calls for.

Perhaps the cheapest way that an amateur photographer knows of to produce an "effect" is to take a picture against the sun and to print it till it's almost black. Call it "by the light of the moon," or some such other pretentious idiotic title, and then the people are all ready to rave over it. Did you ever try to take a real moonlight to see the difference? If you didn't, why my advice is to do it and note the difference. In the "fake" moonlight the foreground is in darkness and stands out harshly against the invariably light sky, while in the real moonlight picture the result is entirely different, *i.e.*, the foreground brightly lighted and gradually blending away into shadow and finally complete darkness. To any one who has ever taken a real moonlight photogram, the appearance of a "fake" picture is positively ludicrous.

Speaking of moonlight pictures, I wonder why it is we don't see more twilight pictures. What a chance there is for the amateur to study composition in the gloaming, when only the great masses are visible and the obtruding masses of fine detail are all swallowed up in the enshrouding gloom. What soft, dreamy pictures can be produced, and how they rest the eye. As Eleanor S. Juslee says:

"Still and silent the green hills lay;  
Stirred neither leaf, nor twig, nor flower;  
Rosy yet from the sun's last ray:  
Lulled to rest by the twilight's hour."

#### Correspondence.

(Correspondence should be addressed to H. McBean Johnstone, Box 651 Sarnia, Ont.)

Junior.—Your question as to whether it will strain a 4x5 lens to use it on a 5x7 box, is a clear proof of the fact that you state in your letter, that you are a beginner in photography. Now why on earth would you expect to strain it? Certainly it will not do any such thing.

Mars.—How often do you need to be told that if you expect to get the best results, it will be necessary for you to keep at the one developer and the one plate. If you *will* persist in skipping about thus from one to the other, I cannot help you, nor can any one else. Select a standard brand of plate and developer and stick to it.

Pan-American.—We give in this month's Scrap Bag a short account of the Pan, and I think that in it you will find the information you are seeking. By all means take your camera along when you go to it.

John C. T.—It is quite possible for you to get very good prints by the use of a paper that can be printed by gas-light, but for the very best results, you will find that if you stick to one that prints out, and that you have some sort of control over, your photograms will possess a more uniform excellence. Personally, I prefer the Aristo Platino on account of its simplicity and adaptability for the rendering of detail. Why not give it a trial, anyhow?

Toronto.—Pyro., if properly used, will not stain the fingers any more than any other developer. You only have to be careful not to dip your fingers out of it and then right into hypo solution. Always wash them immediately after putting them into the developer.

#### Canadian Kennel Club.

The Canadian Kennel Club executive held a meeting on March 23 at which, in reply to a letter from Mr. Joseph Reid, of the Montreal Canine Association, it was decided that wins under American Kennel Club rules should be recognized in counting toward championships. Mr. A. McLean of Toronto, who is charged with entering two false pedigrees, was suspended till he can prove their correctness.

#### Canadian Collie Club.

The annual general meeting of this club was held in the Natural History Society's Rooms, Montreal, on Friday evening, March 22nd. There was a good attendance of members and the retiring president, Mr. Alex. Smith, occupied the chair. Reports were read which showed the club to be in a prosperous condition. The election of officers for the ensuing year resulted as follows: Mr. E. A. Coleman, president; Mr. Alex. Smith, vice-president; Mr. J. A. Brosseau, secretary-treasurer. Messrs. A. McAllister, Peterboro, Ont.; Joseph Reid, W. O. Roy and D. Alexander, Montreal; Walter Elliott and James Reid, St. Lambert, and John Cumming and George Kidd, Petite Cote, form the executive committee, along with the officers, for the ensuing year.

#### Dog Show at Toronto.

The annual bench show of the Canadian Fox Terrier Club opened in Toronto on March 21st, with fully 300 dogs benched. The principal breeds were fox terriers (wire and smooth), fox-hounds and collies, the latter being the finest collection of high-bred animals ever brought together in Canada. In terriers and collies Montreal dogs were conspicuous in the prize list, in the former Mr. D. W. Ogilvie's Bank Note (wire) took first in novice and open, also winners, and gained the bronze medal for the best wire dog in the show. In the collie section Mr. Joseph Reid's two young dogs, Logan's King Edward VII and kennel mate, Logan's Earl, led the string right through, being first and second in puppy, novice, limit and open, the former also securing winners and special for the best collie in the show. Both dogs are under one year and were shown for the first time. Mr. Jos. A. Laurin in Airedales got four firsts and special with Colne Princess, and in St. Bernards Messrs. F. and A. Stuart's grand bitch, Lady Hereward, won first in novice, limit, open and winners' classes. Mr. George Gooderham's fox terrier, Norfolk Clarita, gained the medal offered by the Montreal Canine Association for the best specimen of any breed in the show. In bull terriers, the Newmarket Kennels also figured prominently in the prize list. In Irish setters, Messrs. Coulson and Ward won everything in sight with Shuan Rhue III. Mr. James Mortimer, of New York, was the judge.

#### ANSWER TO CORRESPONDENT.

L.L. (New York).—You may obtain unlimited white goat shooting by visiting Banff, Alberta, or Field, B.C. In the surrounding mountains goats were found to be very numerous last October. You will also get shots at bighorn, deer and bear. Of course you understand that to get big game you must get a complete outfit together and camp out. Wilson, the outfitter at Banff, can give you particulars.

## KENNEL DEPARTMENT

Conducted by D. Taylor

*Correspondence is invited on all matters pertaining to the kennel, and items of interest concerning man's best friend, will be welcomed. An effort will be made to furnish correspondents reliable advice as to the care and treatment of dogs in any case submitted. All communications for this department should be addressed to D. TAYLOR, ROD AND GUN IN CANADA, 603 Craig street, Montreal.*

### MONTREAL CANINE ASSOCIATION.

The dog show committee of the Montreal Canine Association are hard at work on their preparations for the coming bench show in the Victoria Rink, which they anticipate will rival anything of the kind ever held in this city. Quite a large number of entries have already been promised, and just as soon as the premium list is completed and sent out, the committee have little fear but that there will be a rush of entries sufficient to tax the capacity of the rink.

A meeting of the executive was held March 18th in the Natural History Society rooms, at which there were present Messrs. John A. Pitt (in the chair), Jos. A. Laurin, Alex. Smith, Wm. Henry, A. Hersey, A. L. Gault, D. Taylor, Jos. Quinn, Jos. Reid and E. C. Short, secretary.

Quite a number of additional specials were reported, and the committee hope to be able to arrange it so that almost every breed will have its share.

Mr. Harry Lacy, of Boston, was chosen as the all-round judge, and he will adjudicate upon most of the classes, while the terriers, with the exception of bull, will be pronounced upon by Mr. James Lindsay, who has won the confidence of exhibitors of these classes by his fairness and ability. Of course Mr. Lacy is too well known in the canine world to need any comment on his fitness, and it is only necessary to say that he stands second to none in his knowledge of the canine race.

A sub-committee to arrange for the necessary advertising was struck, after which the meeting adjourned.

A general meeting of the Association will be held shortly at which a prominent authority on the subject will discourse on "Man's Best Friend," his remarks being illustrated by beautiful views of the various breeds. The lecture will be open to the public.

A living picture of interest to dog lovers and particularly "pointer" men, can be seen at Mr. E. Outhet's, 107 Lewis Ave., Westmount. It consists of a litter of pointer puppies, five dogs and two bitches. The litter originally consisted of twelve, seven dogs and five bitches, all dark liver and white, and as sorty and true as the most ardent fancier could desire. They are sired by Bennett's "Drake," C.K.C.S.B., 3967, and from owner's "Bess" (Don Pedro ex Lady Sensation). Both sire and dam are workers. The former is probably the best broken dog in this vicinity.

Mr. H. B. Hungerford, at one time closely connected with Montreal and one of the founders of the Canine Association, is now a resident of St. Paul, Minn., where present business interests engage his attention. His many friends among the dog fanciers of Canada will be pleased to hear that he is succeeding well in his new sphere of action and that he has

still a little time left on his hands to hustle in the interests of the dog. "Harry" is nothing if not energetic, and just now he is trying to instil new energy into the doggy men of St. Paul, who seem of late to have fallen into a state of apathy in regard to dog show interests. If Mr. Hungerford can gather around him half a dozen with only a modicum of his own working capacity the success of anything they undertake is assured.

### Manitoba Field Trials Club.

The fourteenth annual meeting of the above named club was held last month at the Winnipeg Hotel, Winnipeg, Man., President Wootton in the chair. There was a good attendance of members and after routine business the secretary-treasurer, Mr. Eric Hamber, read his annual report, from which it appeared that the club was in an excellent position financially. The club was progressing otherwise, as shown by the entries this year, 118 in number, which is in excess of any of the recognized field trial clubs of the United States. The local entries were very good, which showed that the club was fulfilling its mission in encouraging the improvement of sporting dogs.

It was resolved to give up the combined spotting and heat system of judging, experience at the last trials showing it to be a mistake and to have the coming trials held under the spotting system alone. The rule requiring first and second dogs to run together was also abolished.

It was decided to hold the fifteenth annual trial at Carman, September 10th, the stakes being a derby, an all aged, and a championship stake, open to setters and pointers, no previous winning to debar—open to the world.

The officers for 1901 are as follows: Patron, His Honor, the Lieutenant-Governor of Manitoba; president, John Wootton; first vice-president, W. C. Lee; second vice-president, Jos. Lemon; secretary-treasurer, Eric Hamber.

Mr. Henry Jarrett, of Chestnut Hill, Pa., has disposed of part of a kennel of collies to Mr. George M. Kline, of Middletown, Pa. Mr. Jarrett's daily attendance at the veterinary department of the University of Pennsylvania, where he is now studying, prevents his giving so much attention to his dogs. The dogs included in the sale are Goldust, Wellesbourne Chief, Ravenstone Beauty, Princess Alba, Ellwyn Fae, Floradora, Wellesbourne Monarch, W. Pirate, W. Captain, W. Victoria, and W. Hayden—a great combination of well-bred and producing collies. He still retains some good brood bitches and a stud dog.

Mr. George Douglas, of Woodstock, Ont., the well-known breeder of Cocker Spaniels, has lately disposed of the following: Searchlight, red dog, to W. H. Floyd, Brooklyn, N. Y.; Baby Hill, black bitch, to Mr. Richardson, Brooklyn, N. Y.; Mottle Duke, parti-colored, to Laverock Kennels, Wilmington, Del.; Deacon, red dog, private party, Western, N. Y.; Prince Albert, black dog, to Miss Elizabeth Woods, Saratoga Springs, N. Y., Flora Temple, black bitch, to George Greer, Rye, N. Y.

Selkirk Whyte (Whyte B. ex Luna), owned by W. B. Wells, of Chatham, Ontario, and litter brother to his well-known bench and field trial winner, Selkirk Dan, is greatly admired by all who have seen him. He is a grand dog taken from a bench or field trial standpoint, being a combination that is seldom seen. He was unfortunately left deaf after having distemper when a puppy, consequently he is very hard to handle.

The laws of Great Britain prohibit the use of dogs in drawing vehicles. The practice, however, is quite common in Germany, where large dogs, trained as beasts of burden, are frequently to be met harnessed to a small cart or sleigh containing what appears to be a heavy load compared to the weight of the animal. Yet they go along with apparent ease and contentment. In Canada the use of dogs in this manner is entirely confined to the small boy who has inventive genius enough to construct a rude cart and ruder harness, and is only indulged in "for the fun of the thing."

\*

Thos. Andrews, of Glencoe, Ontario, is handling a pair of puppies for W. P. Wells, of Chatham, Ontario, and he pronounces them cracker-jacks. If blood counts they should certainly be heard from, as they are by Lady's Count Gladstone ex Selkirk Freda.

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#### A Mad Dog Scare.

At the present time there is a good sized scare in some cities on the other side of the border over alleged cases of rabies, and if one were to believe all the tales that appear in the daily papers it would be necessary, as a means of precaution, to go around clad in tin-plate armour. From Chicago it is reported that quite a number of cases have lately manifested, and Dr. Antonio Lagoria, who is a director of the Pasteur Institute, claims that the authorities have been negligent in their duty and fears an epidemic. The citizens of Rochester, N.Y., have gone panicky over the matter and a dog-muzzling ordinance has been passed. In self-defence, and to try and counteract the prevailing fright, dog owners, who are not the least bit scared, have formed a society, the aim of which shall be to counteract the prevailing fright and show the people that there is no reason in losing their senses over the presence of a sick dog. The American Field very aptly says on this question: "No doubt men have died from dog bites, but they might have died from the prod of a pin, the wound of a sliver or an unskilfully pared corn. Blood poisoning seems to be as liable to happen from any casual wound as from the bite of a dog, and while no one in his senses will invite a snap from any of the canine race there is another degree of folly in shouting 'mad dog' whenever one of the poor beasts show symptoms of distress."

An incident occurred a picnic last year which forcibly illustrates the folly, not to say the criminality, of raising such a cry as "mad dog," and the irresponsible party who did so can only be compared to the idiot who shouts "fire" in a crowded audience at a theatrical performance. A dog lying quietly on the river bank, probably, as a sensible correspondent afterwards suggested, stung by wasps or by ants, suddenly jumped up, ran around barking for a time, and finally jumped into the river and swam across, where, on emerging from the water he was brained by an oar by one of a boating party. Meanwhile the cry had been raised, and the picnickers were in a state of great excitement, women fainting and screaming, while several persons jumped into the river and were with difficulty rescued. No single one of the dog's actions bore the slightest resemblance to those of a rabid dog, and it is to the last degree discreditable that a presumably harmless animal, evidently in pain and probably the pet and companion of a household, should be needlessly and cruelly murdered because, on his acting in a manner not entirely in accordance with his usual everyday habits, an excited, panic-stricken crowd shout "Mad dog. Kill him!" A suspected criminal is not branded

as such until his case has been tried and proved, but his unfortunate victim of man's ignorance, cowardice and folly was hastily condemned without any trial at all.

Medical men are not by any means agreed that there is such a disease as rabies at all, and several of great eminence in the profession attribute the occasional after effects of a dog's bite rather to mental suggestion acting upon the nervous system.

\*

#### Preliminary Dog Training.

When and where should preliminary training of a bird dog begin? This subject is not generally understood by the novice. The prevailing idea that a puppy at the age of three or four months should be begun with is an old-time belief and a big mistake. The preliminary training, commonly called yard breaking, should not be commenced till a puppy is well developed and strong enough constitutionally to endure the hardships of the ordeal. If constitutionally weak it may be too soon to make a beginning at one year old. A strong, healthy, spry and active pup may be taken in hand at the age of about six months, but should not be crowded much till older, and good judgment is necessary to avoid cowering and breaking the pup's spirit. At the age of three to four months the puppy should be taken afield frequently—not, however, to be shot over. While out in a likely place for game the youngster should have perfect freedom in romping about, nosing out birds and giving chase to his heart's content. By so doing much of the embryonic, instinctive and functional qualities of the future pupil may be observed. The more enthusiasm displayed, the more promising the puppy. The greater opportunities the puppy is given in finding birds, the quicker will he establish the habit of hunting and pointing. There can be no definite age given at which a bird dog will hunt and point satisfactorily. Puppies, even of the same litter, differ widely in this respect; some pointing by sight—no guarantee of ultimate utility—at the age of four to six weeks, while others may not establish a point till fully matured. If the pointing instinct should not have been developed at a reasonable age, that should not be deemed a sufficient reason to condemn a puppy—if well bred—if he exhibits activity, hunts for and finds birds, gives chase, etc. In that case training may proceed, confident that the latent instinct will develop in course of time.

Actual training afield should not be attempted before the young dog has had a sufficient course in yard breaking. Sportsmen residing in a populous city usually suppose that in order to give their puppy any preliminary training they must go to the inconvenience of taking the dog to the country for that purpose—a great mistake. Aside from the inconvenience, loss of time and the impracticability, the open field is not the place to conduct a puppy's preliminary education. If there be no yard room available, then a vacant room in the house may be used. Indeed, the vacant room is strongly to be recommended for that purpose, because therein will be nothing to distract the pupil's attention; hence greater progress will be made.

Proper yard or home training comprises the greater part of the task in fitting a dog subservient to the gun; it requires time and patience, and as but few city residents cannot find half an hour's time daily to devote to their pupil at home, there is no reason why they should take a young dog afield not fully controllable and in a measure fit to be put on game in its haunts. In the room you teach the puppy obedience to orders, to precision, comprising such as: Walk to heel, sit down, come on, lie on, fetch (including real birds), come to charge, the order by word or whistle, obey by wave of the hand, dropping

to wing, etc. When a dog so instructed at home is taken afield to be worked on game, the essential and most necessary accomplishments will have been attained. Half an hour daily for a few weeks devoted to a puppy at home will work wonders; but it would be a waste of time to engage with a youngster in a frolic, such as rolling a ball for him to chase and fetch in a playful way, learning a few tricks that are in no way applicable to real work afield; or, perhaps, cowing the puppy by endeavoring to beat an "education" into him while he does not understand what is wanted. If the task of training a puppy is to be undertaken at all it should be conducted systematically in an approved manner.—Ed. F. Haberlein in *Field and Stream*.

\*

#### Different Points of a Dog.

To arrive at a proper understanding of the different points of dogs it will be best to enumerate them, says Mr. Harry Lucy in the *Boston Herald*:

As an example, there are five different kinds of ears, the names for each indicate their formation. The rose ear is visible, the overhanging flap of the ear being thrown back and half raised, as in the greyhound and bulldog. The button ear speaks for itself, as the ear flap buttons over to the skull or cheek, as in the Irish terrier and fox terrier. The prick ear is the ear that stands straight up, as in the Scottish terrier, French bulldog. The tulip ear is allied to the prick ear in carriage, but is not held so upright and is more of the shape of the petal of a tulip—hence the term. The semi-prick ear explains itself, and the best example is seen in the collie, the ears at attention, being erected so that the tips fall over either in line of the face or a little to one side.

When one speaks of upright shoulders in a dog, one means that the shoulders are not laid back or oblique, as they should be in all running dogs.

The loins are that part of the anatomy of the dog between the last rib and the hindquarters, or, rather, hip bones, and in different breeds of dogs the length or shortness of this part of the anatomy are important factors in the symmetrical build of the dog. Roached are arched or wheel formation of loin, as exemplified in the greyhound, dachshund, bulldog, etc. This formation is usually associated with an under-construction which is termed "tucked up," points of great beauty in the breeds above mentioned. "Long in flank" is to be long in loins and the condition known as contrary to "short-coupled."

Brisket is the fore part of the chest, and the term "deep in brisket," alluding to bulldogs, means deep in chest.

"Flat-sided" refers to lack of spring in the ribs, and in this connection it is apropos to point out one of the anomalies in dog standards. The greyhound's formation of rib calls for barrel shape, the more in reason, of course, the better, while the Russian wolf hound, an animal of the same family, and also a coursing dog, has what is termed fish sides, almost flat, but this condition redeemed in measure by the greater depth of chest in this breed; the "spring" of the rib explains itself.

"Out at elbows" is a condition when points of the elbow joints turn out.

Pastern is that part of the leg between knee and knuckles.

The pad is the sole of the foot. A hare foot refers to one that is long and narrow in distinction to a foot that is short, round and compactly knuckled, called "cat foot," and seen to perfection in a good fox terrier.

Stifles are the upper joint of the hind leg, and "straight," as in bull terriers, and "bent," as in greyhounds, offer the distinction typical of different breeds.

The second thighs, more especially considered in the points of a dog that is expected to gallop, is the muscular development between the stifle joint and hock.

The hock is the lower, more or less pointed, joint of the hind legs. As a rule these joints should set in line with the body, but when they turn in like those of a cow they are termed "cow hocks."

The different terms to denote coloring in dogs, and which are not self-apparent, are—tricolor, as in the case of the black, white and tan collie, or the Prince Charles spaniel of the same three colors. Wheaton red, found on the Irish terrier's coat, is a pale yellowish hair, with a reddish tip, as in the kernel of wheat. Grizzle is a bluish gray color, mostly found in the rough coated old English sheep dog, Merle is the bluish gray, splashed with black found in the smooth and rough collie, and usually accompanied by a wall-eye. Harlequin, a great Dane color, means pied, mottled or patchy in color.

There are several terms used by experts in dog lore for denoting the general appearance of the dog. In many breeds much stress is laid upon expression, and different breeds are typified to some extent by the intensity or modification of this quality. Expression is mostly determined by the size, color and placement of the eye. There is the large, full, benevolent eye of the setter and the spaniel; there is the sharp, keen eye, with a mixture of cunning and benevolence the collie is known by; the small, richly hued brown, deep sunken eye of the bloodhound, which is supposed to betoken wisdom, and the somewhat sunken eye, showing a little of the haw, from which the St. Bernard derives its look of benevolence and dignity.

The terrier expression is more generally alluded to as "varmint," meaning keen, snappy, on the qui vive. The eye is dark, free from any haw (which is the red membrane within the lower eyelid), is not sunken nor large, and is set in a somewhat horizontal position, all of which contributes to a keen, "varminty" expression. An axiom in cynology is that the rounder and fuller the eye the milder in expression.

The terms "type" and "character" are generally considered synonymous, but they are not exactly. The term "character" is that vague expression of the whole that conveys a meaning which only dog owners of experience can properly appreciate—expression, points and style are all combined in quality which associates itself with or stamps every breed. The term "quality" denotes that indescribable something that severs the patrician from the plebian, and is quite as prominent in the dog as his best friend, the man, and can only be found in dogs which are blessed with type and character to a degree.

\*

#### CHIPS.

By C. A. B.

To stretch new moose hide snowshoe strings: Place them in warm water over night. Next day hang from a nail or hook with heavy weight attached. When almost dry (but not quite) rub thoroughly with melted mutton tallow. If these directions have been followed faithfully, but little trouble will be experienced from stretched strings when walking.

Moose hides are prepared by the Indians in two ways. The first part of the process is identical in each case. The hide is soaked in water until the hair loosens, then hung over a smooth pole and scraped with a bone scraper, made by splitting the upper leg bones of the animal. The hide so prepared is babiche, used for filling snowshoes, and a hundred and one other things. Before a skin is fit for moccasins it must be

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smoked until cured and pliable. The hide is, therefore, sewn into a bag, and inverted over a fire made of green, rotten wood (often in an old bake kettle). There must be lots of smoke and but little heat, for things to go well.

It pays to take some care as to your bed. A man plays out when he has rested badly for several consecutive nights. First spread several layers of finely broken balsam boughs, placing the butts toward where your feet will be when you are lying down. Over these lay a waterproof sheet and your blanket. The blue 4-point Hudson's Bay blanket is one of the best. A pair weigh 14 lbs., and two pairs will keep a man comfortably warm through a pretty cold night. The warmest covering of all is, however, the Indian rabbit-skin blanket, made of narrow strips of rabbit skin woven into a wrap. These cost from \$3 to \$10, according to size and quality. They are too warm, except for the long, cold nights of mid-winter.

Better by far than any sock in winter, is the blanket square, used by so many Indian hunters. Cut a small blanket into square pieces of a suitable size, and wrap each foot in a couple, drawing on a moose skin moccasin over all. Keep several on hand and wash out and change every day while snowshoeing. If you happen to get your feet wet, change at once. A spare pair may be carried in the bosom of your hunting shirt.

The Ojibways divide the year into 13 moons. Two of the names they have given are most poetical—Ghost Month and Flower Month to wit—but the others are commonplace and show little imagination. As instances, New Year Month, Glare Ice Month, Strawberry Month, Trout Fishing Month, &c.

### SALMON FLIES.

Salmon fishing is yet a long way off, but it takes time to get flies and tackle in order, especially when the orders are sent to the Old Country, as is often done, hence it is not too early to offer two or three patterns that will be found deadly on almost any Canadian river.

No. 1, tail—a topping; tag—a few turns of orange silk, and two of silver tinsel; butt—peacock herl (may be omitted); body—light orange pig's wool; tinsel—silver; hackle—red natural; wing—dark mallard, with a topping and sprigs of scarlet macaw.

No. 2, tail—a topping; tag—blue silk; body—shoulder half claret, remainder grey pig's wool; hackle blue; tinsel—silver cord; wing—turkey or mallard.

No. 3, tail—a topping; tag—claret silk and silver tinsel; body—grey fur; tinsel—silver, flat; hackle—claret; wing—light mallard, two toppings.

The foregoing are all proved patterns; in addition no fly hook is complete without Jock Scott, Black Fairy, Silver Doctor, Durham Ranger, Butcher and Popham. Hooks should run between Nos. 3 and 3-0 O'Shaughnessy. Double hooks are preferred by some, but certainly not by a majority of salmon fishermen. Sometimes, however, for August fishing when very small flies are a necessity, the double hook is almost essential.

For Nipissiguit a plain mallard wing, an apple green silk body on a No. 3 hook is very killing in the upper pools late in the season. On Restigouche an orange or red tag is often a decided improvement. The great Miramichi medicine fly has usually a plain mallard wing and a grey or orange body; nothing but orange will kill many fish on the Port Midway (N.S.) in May, so it goes, Salmo solar being as nice in his selection of colors as a dame selecting her Easter bonnet.

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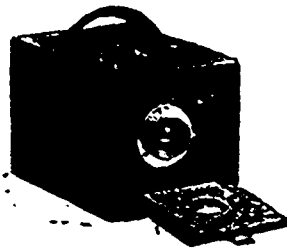
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