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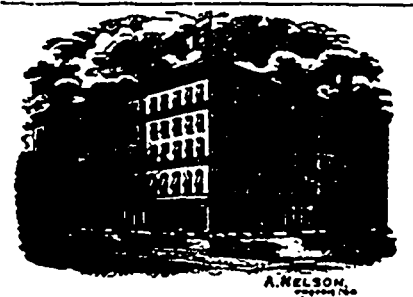
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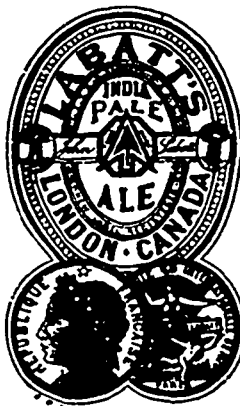


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GAME
INTERESTS
OF
CANADA.

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MONTREAL, JULY, 1900.

Single Copies Ten Cents.

PUBLISHED MONTHLY.

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Canada's immense forests are not only among its chief natural sources of wealth but are a great attraction to the sportsman. In these one and one-quarter million square miles in round numbers, 500,000,000 acres of forest, is to be found the finest big game lands of America.

Canoe trips in Canada are becoming a favorite means of spending a summer vacation by visitors from across the line. No other country offers such a variety of trips of that kind amid charming surroundings and with excellent fishing, and in a climate that is unequalled. Those whose eyes have seen the sweep of the dark-green northern hills, who have slept nearby the foaming rapids amid the incense of the balsam and spruce, and imbibed the true spirit of the wilderness, will again and again return to Canada, for in it is all this in perfection.

A recent explorer on Trembling Mountain, Quebec province, reports the view from its highest peak as indescribably grand, a very large portion of the Trembling Mountain park being in full view. He says the park shows no fire ravages but is in a state of wilderness perfection, an aggregation of well wooded

mountains and valleys, intersected by numerous streams and lakes.

One of our U.S. contemporaries, in speaking editorially of changes made last spring in the fish and game laws of Ontario and New Brunswick, speaks of them as "the revised laws of the Canadian provinces," and, judging by this and following criticism, is evidently under the impression that they apply throughout Canada. For example, he states "moose, reindeer or caribou can be killed this year only between November 1st and 15th, and between the same dates every third year hereafter, another wise bit of protective legislation." These dates refer solely to the province of Ontario. Moose and caribou can be killed every year in the other provinces, where they abound, the open seasons in the eastern provinces being for moose: Quebec, Sept. 1st to Dec. 31st inclusive, excepting the immense counties of Ottawa and Pontiac in which the open season is Oct. 1st to Nov. 30th inclusive; for caribou, entire province west of the Saguenay from Sept. 1st to Jan. 31st inclusive. New Brunswick generally permits moose and caribou to be killed from Sept. 15th to Dec. 31st. We suggest to the editor of our c.c. that he take a trip to Canada and learn how big the country is and what a magnificent place for the sportsman, then he will understand that the laws of one province are not operative throughout the Dominion and could not reasonably be so on account of climatic and other conditions.

The Lacy game bill, which has passed Congress, should assist materially in preventing shipments of illegally killed game birds or animals. The shipper, the carrier and the consignee will each be subject to a \$200 fine on conviction for interstate shipments, and the carrier and consignee, for shipments from Canada.

Spare the small fish is a good maxim for every angler. Fishing for count, re-

gardless of size or weight is properly losing its attraction to the many, as it has long ceased to be attractive to the best sportsmanship, which looks upon it as greediness, without regard to those who come to fish in later years, when the small fish shall have become heavier, stronger, gamier and worth catching. Therefore, if small fish are caught, unhook them carefully and return them to the water and content yourself with quality, not number.

The international revolver match which took place in June between teams from the United States and France resulted in a victory for the former by 23 points at a short range and 38 at long range.

St. Gabriel de Brandon, Que., has faith in its own initiative, and evidently believes that sportsmen are the people who should first be attracted to it. This town has adopted the unique method of advertising itself by means of a fishing contest, four money prizes being offered for the largest maskinonge caught in Lake Maskinonge, near which the town is situated. We reproduce the circular on another page, believing it will interest readers besides those living in the city to whose citizens it is addressed.

Commencing with this issue, our Forestry department will be conducted by Mr. E. Stewart as editor and Mr. R. H. Campbell as sub-editor. Mr. Stewart is Chief Inspector of Forestry for the Dominion and also Secretary of the Canadian Forestry Association, of which Mr. Campbell is Assistant Secretary and Treasurer. With these able gentlemen in charge, who were appointed thereto by resolution of the Canadian Forestry Association, May 31st, readers of ROD AND GUN may look forward to a forestry department well conducted and of practical value.

FISHING IN THE PORCUPINE HILLS.

By Lawrence J. Burpee.

Continued from last month.

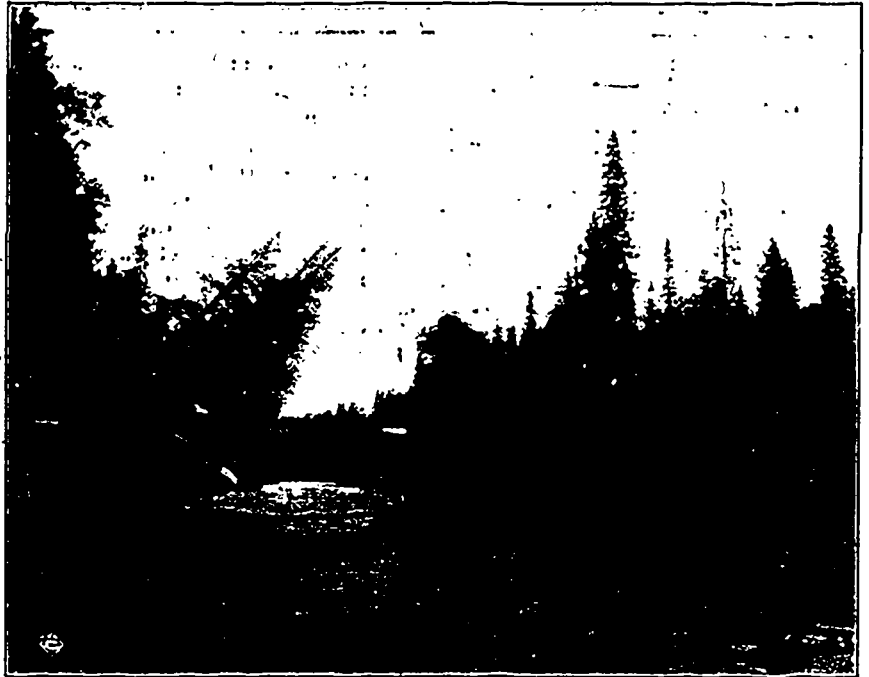
While we were smoking the commissioner laid a wager with me that I could not catch a gopher. I honestly believe his only object was to have the luxury of seeing somebody else struggling over muddy ground under a broiling sun, while he lay comfortably on a pile of blankets, shaded by a large and disreputable looking umbrella. However that may be, I accepted his challenge, having been much impressed with a venerable western yarn—but new to me—which I had heard the day before, of the estimable Redman who had lived in peace and plenty on the prairie for days—I am inclined, in fact, to think it was for weeks—with no other weapons than a piece of string and a bundle of matches. He caught the gophers with his string, and the prairie grass provided the fuel. Such a man would be quite capable of eating them raw, hair and all, and it would have added to the simplicity of the tale. I felt that what an ignorant Indian could do, with such satisfactory results, I could surely manage, at least once. With a piece of twine, therefore, and a certain amount of enthusiasm, tempered with modesty, I started off gopher hunting. One need not go far, as I have said before, to find gophers on the prairie, and I was soon among them, their shrill tweet! tweet! sounding on every side. Now and then a small inquisitive head would pop up from a neighboring burrow, but there was evidently something suspicious looking about that piece of string, and the way it was carried, for they never stayed up long—indeed, I had only to move to cause the sudden disappearance of a circle of bright eyes. I selected a promising looking burrow, arranged my noose over it in the approved fashion, and waited patiently until his incurable curiosity should bring the small tenant to his door. But I had reckoned without my host, for it appeared he had, like all sensible householders, a back door as well, out of which I presently found him watching me with undisguised amusement. I got up quietly, and ignoring some irrelevant remarks which came on the breeze from the direction of our camp, tried another hole; and would to say that, after about an hour's perseverance, I did catch a gopher—one wore unwary than his fellows. I carried him in a fish basket, to the camp on Trout Creek, but he escaped in the morning by gnawing through the cord which was tied around one of his legs. He is now probably the father of a large family somewhere among the Porcupine Hills.

Our tardy driver turned up in about an hour, with a double waggon, and we packed everything on board and started

forward once more. We were very much impressed with the splendid looking cattle that roamed freely over the prairie at the foot of the hills in herds of five and six hundred. They looked like the prize cattle one sees in an eastern cattle show, remarkably sleek, fat and well-proportioned.

It was quite dark when we arrived, tired and very hungry, at our camping ground, on the bank of a beautiful little stream that could be heard bubbling and whispering through a series of tiny rapids down

was bounded by one of the highest of the surrounding hills, to the north, running westward into an intricate network of green valleys which intersected the hills in every direction. The view from the summit was something to be remembered. On every side rose the rounded hills, innocent of trees, or even bushes, but clothed to the summit with the richest coloring of green. Between them wound, in many an intricate turn, the still greener valleys. To the eastward the prairie lay, bounding



View on the Magpie River, Northern Ontario.

to the open prairie. We were not in any humor for sentiment: then, however, as there was a great deal of work to be done. While some of us unpacked the waggon, others gathered dry twigs and branches, and presently had a cheerful fire blazing up. A tripod was erected over this, and the appetizing smell of fried bacon filled the air with its fragrance. The tent was now up, and everything snugly stowed away, and we sat down in a circle to eat our very late dinner, by the fire light. It was close on midnight when we got through, and after a rather sleepy and incoherent chat we turned in for the night.

The sun had but a very short start of us next morning. It had hardly taken leave of the distant edge of the prairie when the first riser opened the tent door and revealed the picturesque spot whose features we had only imagined the night before. The tent was pitched a few yards from the creek, on a narrow strip of plain covered with velvety grass and innumerable flowers. Beyond this the land rose gradually to a wider plain, thirty or forty feet above the level of the creek; and this

the horizon, an immense grassy inland sea. Westward, above the highest of the hills, towered the snow-capped peaks of the Rockies. The scene was one that could be more easily felt than put into language. The Rockies, misty and ethereal in the distance, seemed to be something apart—something belonging to another world, a land of the imagination, where our early dreams of fairyland might be realized. I spent several hours here, dreaming lazily of the picturesque old legends of other days, and of the old-time story tellers, who would have clothed these silent and beautiful hills with magic, and peopled them with fairies and gnomes.

But this was in the afternoon, when the first ardor of fishing had worn off. In the morning, immediately after breakfast, we armed ourselves with rod and basket, and scattered up and down the stream, to try our skill in the piscatorial art, with as much enthusiasm as the immortal Walton. I didn't go far, but waded out to a comfortable looking boulder in mid-stream, and to my intense surprise, for I had never heretofore been a successful fisherman,

caught half a dozen beautiful trout of fair size, in as many minutes. There I sat for some time—simply enjoying the charming beauty of the scene, the clear limpid water, in which everything was visible, even the fish, as they flashed up and down the rapids, the verdant banks of the creek, along which grew the only trees that I had seen so far in the Northwest, and on every side the hills, rising in graceful curves one over another.

But after a while I felt that I would be eternally disgraced in the eyes of the inspector, to whom fishing was a sacred art, if I did not at least fill my basket. So I waded ashore and wandered up stream, throwing my line at every promising spot, with success such as I should never have hoped for.

These trout have somewhat the appearance of the eastern brook trout, but lack the distinctive pink flesh, and, what is more important, the delicious flavor, of the real brook trout. But they certainly made up for any slight inferiority in quality, by their unquestionable quantity. Trout Creek did not belie its name. It fairly teemed with life. My companions, who were more skilful and more enthusiastic than I, returned towards noon, with a cargo of fish running in weight from a quarter-pound to three-quarters. The inspector's face was a study, as he came into camp. To him a good trout stream was as near Paradise as earth could provide. He beamed on everyone for the remainder of the day, and nothing could disturb his good nature.

In the afternoon he and one of the others went down stream and caught more. It is only fair to say that out of our party of six, the two constables did not fish at all, and the commissioner and I did merely enough to save our reputation from being utterly ruined in the eyes of our friend the inspector. Consequently the large proportion of the total catch was made by two men. I doubt if any stream could show much better results than that. These fish did not rise to the fly at all. They seemed to prefer raw beef to any other bait. Worms are an unknown commodity in the district.

To guard ourselves against the inevitable incredulity which outsiders feel for the tales of fishermen, we took snap-shots at our catch strung up between two bushes—or rather, I should say about half of the catch, the detective, who was stringing them on a fishing line, having rebelled at last, and declining to touch another one. The remainder was left in the baskets.

We lived on fish all day, fish for breakfast, dinner and supper, and we took back enough with us, on ice, to supply the police mess for several days. We at the hotel treated our friends there to an excellent trout breakfast the following morning.

In the evening we gathered around an enormous camp fire, to feed which we had scoured the country side for fuel. On it

were piled the trunks of several fallen trees, the largest that could be found. We sat far into the night, telling yarns and listening to them, especially to the inspector's, for he was an "Old-Timer," and had been through the roughest of the early days. The commissioner also searched the recesses of his memory for amusing anecdotes of bench and bar. My latest recollection, after we at length tumbled in, is of awaking somewhere in the wee sma' hours to see the inspector sitting up, sound asleep, but telling one of his favorite stories to an imaginary audience—imaginary, if I except an inquisitive gopher who stood in the tent door, and a shikung coyote in the safe background, down by the creek. I threw the inspector's boot at him, and its owner rolled over to sleep once more, with a request not to make so much noise—as though he himself were innocent in the matter.

We broke camp very early the next morning, and arrived in town, very dusty and dirty and tired, but with a magnificent cargo of trout, which we were careful to show to everyone.

Apart from the pleasure which every man should get from a good day's fishing, where the finny creatures are hungry and rise readily to the bait, the surroundings of our camp in the Porcupine Hills were such that we were all loth to say good-bye. It would be hard indeed to find a more charming spot to spend a week or two, either fishing or merely loafing around with a novel or two and one's pipe and a companion to chat to when one felt so inclined. We had picked out perhaps the most lovely spot to be found along the creek, beside one of its numerous rapids, whose murmuring music lulled us to sleep at night. The creek wound its way down to the level plain, with many a curious twist and turn. It seemed the very prototype of that famous brook immortalized by Tennyson:

I chatter over stony ways,
In little sharps and trebles,
I bubble into eddying bays,
I babble on the pebbles.

I wind about, and in and out,
With here a blossom sailing,
And here and there a lusty trout,
And here and there a grayling.

Had the poet drawn his inspiration from this modest little western stream, he could not have more fittingly described it. Not only is the "lusty trout" there, with all his relations, but the grayling also, a Canadian cousin of that which Tennyson knew.

If any of my readers are ever lucky enough to wander as far as Fort Macleod, they cannot do better than drive out to Trout Creek in the Porcupine Hills. To camp there, in midsummer, is equal to any excursion within my experience.

CAMPING WITH INDIAN TEPEES.

By Straw Hat.

Schoolcraft, the Indian historian, made his home at Sault Ste. Marie for some years, where his family intermarried with that of a famous Indian chieftain. Here Schoolcraft became acquainted with Shingwauk and his son Buhqujimini, and Longfellow, the poet, obtained the legend from Schoolcraft, which he immortalized by its rendering in the form of the poem, "Hiawatha." The hunting ground of Shingwauk and Buhqujimini extended from Marquette, Mich., to below Desbarats, Ont. Shingwauk's grandson, Kabooosa, and great-grandson, Wabanosa, are living at Desbarats Station, and another at Garden River, near Sault Ste. Marie. They are fairly educated men, proud of their race, and are convinced of the fact that the original of Hiawatha was Buhqujimini, who died only a few months ago. They hold Longfellow in great esteem for so correctly picturing the life of the Ojibway tribe. They have invited the Longfellow family to be their guests and to see the Drama of Hiawatha, the first presentation of which will be early in August with real Indians. Provision will be made for a large number of people to camp out on the Desbarats Islands. The hotels are only small country inns, which the local people think good enough, but which would go far below the expectations of the average tourist, so that those coming there this year must come prepared to rough it. There is a summer hotel building at the present in the Indian village at Richards' Landing, both of which will be ready on August 1. These will be outfitted for people of the more exacting kind so that it will provide a better class of accommodation than that just described. However, the tents and camping outfit will be provided by experienced people, and there is nothing to dread in that sort of living and much to enjoy. In the meantime parties leaving the train, who have to spend a night or take a meal at the Desbarats Hotel, will have no cause to complain. A steam launch, row-boats and waggons will bring tourists from the Desbarats Station or Hotel to the Islands during the tourist season.

To secure tents or tepees it will be necessary to write ahead to A. V. Reid, Desbarats, Ont.

Fish Story.

First octopus—Here comes old shark. Let's swim away.

Second octopus—Why?

First octopus—O, he's always telling about the time he caught a man ten feet long and let him get away.—Baltimore American.

The Canadian Hunt Club

By C. JNO. ALLOWAY

LESS than twenty-five years ago there was perhaps but one regularly organized hunt club upon the continent, and to-day there are fully one hundred in operation in various parts of Canada and the United States. During the past ten years this kind of sport has become quite a fad on this side of the Atlantic. Where previously the trotter was the favorite among horsemen, he has now to give precedence to the hunter, and as a direct result of this change of opinion as to the uses to which our high class horses can be put, horse shows have sprung up all over the country, conducted on lines largely after the pattern of those held in Great Britain for many years past. While possibly the high-class roadster is holding his own in many respects, the saddle horse and hunter have come to the front in a manner that has been a surprise to those engaged in this branch of agricultural industry. In our June number we gave an historical sketch of the Montreal Fox Hunt, and in the present issue we purpose giving a brief account of the Canadian Hunt Club, which was organized in November 1897, with a membership of twenty-five. The officers elected for the following year were Dr. A. R. L. Marsolais, president; Mr. L. H. Painchaud, vice-president; P. A. Beaudoin, treasurer, and J. B. Lamarche, secretary; the kennels being located at Longueuil. During this year the work done was more of the character of organization, and the getting together of a full complement of hounds to hunt on regular days, and to get familiar with the possibilities of the country over which they were to hunt. Many of the members took a deep interest in these initiatory steps, and their efforts were rewarded with a success far beyond that anticipated. Foxes were found in abundance, and contrary to expectations, the farmers in the vicinity of Longueuil welcomed rather than opposed their coming, as was also the case in St. Hubert, St. Bruno, Repentigny, and St. Lambert. The year 1899 opened very much more favorably, the membership having increased to one hundred and twenty-five and large and valuable additions were made to the pack. This year the hunting season commenced about the middle of September and continued until the early part of December. Throughout the entire season the sport was excellent and the country hunted over is certainly the best to be found in the Province of Quebec, being plentifully sup-

plied with game and more open and freer from barbed wire than the Island of Montreal. During this year Mr. Geo. A. Simard was Master, and Mr. J. B. Lamarche, secretary. The membership has increased, until it now numbers one hundred and sixty active members. At the last annual meeting, Dr. J. D. Gauthier was elected Master and Mr. J. B. Lamarche re-elected secretary, and since that date the club has become a regular member of the Canadian Hunt Association. For the first time in its history this club is now in possession of a club house, situated at St. Lambert, about a mile above the Victoria Bridge on the south side of the river, where is commanded a beautiful view of the St. Lawrence, with the rapids in sight a short distance higher up. Almost immediately in front of the Club House is located a beautiful bay, where excellent fishing, boating and bathing are obtainable, which adds materially to its attractions. The members have also in the vicinity training grounds, where the young horses are schooled, and huntsmen in embryo are taught lessons in the art of horsemanship and the technique of the hunting field. Lying to the south and east are the beautiful coverts of St. Hubert, St. Bruno, Gentilly, St. Philippe, and Boucherville, with Laprairie to the west. The official opening of the Club House was held May 28th, and was a most brilliant affair. Members and invited guests were arriving and taking their departure from ten in the morning until five p.m. They were received by Dr. Gauthier, the Master, and Mr. J. B. Lamarche, who were ably assisted by Dr. A. Brosseau, Major F. G. Mackay, Dr. P. E. Maurice and Messrs. J. A. O. Laforest and Clovis St. Louis.

The visitors were numerous and expressed their appreciation of the courtesies tendered them, and showed their interest in the equipment of the new club and its development in so short a time.

At noon lunch was served, for which forty covers were laid. During the afternoon a four-in-hand tally-ho coach put in an appearance containing a number of members, whose arrival was announced by the lusty blowing of the "Fanfare de Cors de Chasse." The performers were Ths. A. Reeb, Paul de Bellefroid, J. B. A. Tison, H. S. Pierre and Paul Degremont. These gentlemen added much to the enjoyment of those present, to whom this musical organization was quite a novelty, being the only one of its kind in America, though a

frequent accompaniment of hunting clubs in France. The tally-ho party consisted of Messrs. Arthur Berthiaume, Eugene Bastien, T. E. Huot, Arthur Lamallice, Eugene Cadieux, Arthur Ibbotson, George Vandelaer, J. R. Mainville, V. Murphy, Monette, Coswell and Rusilon. The pack now numbers thirty-eight entered hounds, mostly imported and from imported stock. In addition to the hunting proper, a polo club has been organized, and some of the more energetic members have entered into this new departure with such a zest that it has already become quite popular. The first practice took place on June 9th, and every Saturday since the sport has been taken hold of with much spirit.

Two car-loads of polo ponies have been purchased in the Northwest, and will be regularly used instead of the larger horses.

Many members are now spending the summer at the club house, where they can indulge in almost any kind of exercise, both on land and water.

The hounds are now taking preparatory exercise, and cub-hunting will begin in August, and the first regular meet will take place the second Saturday in September.

We have received Part I of Catalogue of Canadian Birds, by Professor John Macoun, M.A., F.R.S.C., naturalist to the Geological Survey of Canada. The name of the author is sufficient to suggest the fact that the catalogue, like everything emanating from him, is eminently practical. It is intended to be a popular work and contains the English names of the birds as well as the scientific terms, and the species are arranged in scientific order. There are copious notes and many valuable references. Part II. is intended to complete the catalogue and will be published later on. Price of Part I. ten cents. Published by the Geological Survey, Ottawa.

The Anglers' Association of Perth has been formed and the following officers elected:--

President—T. A. Code, Esq.

1st Vice-President—J. F. Kellock, Esq.

2nd Vice-President—J. A. Allan, Esq.

3rd Vice-President—J. E. deHertel, Esq.

Secretary—C. F. Stone.

Treasurer—R. J. Drummond, Esq.

Executive Committee—Dr. Beeman and Messrs. A. W. Goodman, Robert Burris, Wm. Farrell, sr., J. F. Kellock, G. E. Armstrong, J. R. Mitchell, J. M. Balderson, P. Hope, J. Ed. deHertel, and Mac Marks.

Honorary members—Senator McLaren, Hon. John Haggart, Col. Matheson, M.L.A., Mr. W. C. Caldwell, M.L.A., and Mr. Judd

This association will devote itself largely to preserving the fish in the many angling waters near Perth, Ont., and no doubt will do excellent work.

THEN AND NOW

By Chas. A. Bramble

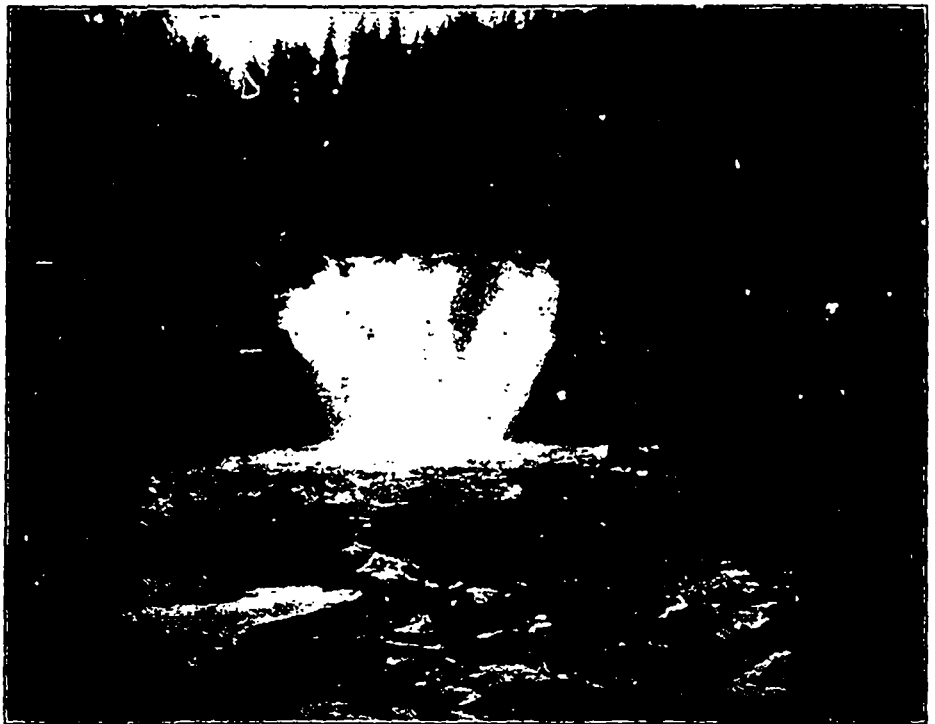
SPORTSMEN and tourists visiting the pleasant little town of Mattawa, on the upper Ottawa, are hardly likely to know of the great changes that have taken place in that region during the last generation. In that time Mattawa has changed from a Hudson Bay post, remote from civilization, and rarely visited by anyone not connected with the fur trade, into a sufficiently lively little town boasting of several hotels, and into a junction where two railroads join their steel bands.

Things are very much more comfortable to-day at Mattawa than they were in the early ages. When the writer first found himself at the meeting place of the Mattawa and Ottawa Rivers, there were no hotels, and he thought himself lucky to get a bed on the floor of a half-breed's hut; now you may turn the electric light on or off, call for hot water to shave with, in fact, indulge yourself in all the luxuries of an effete civilization—that is, provided you have the two or three dollars a day necessary to command such luxuries. Living as yet is not very expensive on the Upper Ottawa, though the prices are several hundred per cent. higher than they were twenty years ago. Then one could often do more by the present of a few cartridges, or of some stray fish-hooks, than with dollar bills.

Of course all these changes have not taken place without affecting more or less the game distribution of the district. Just as there is one glory of the sun and another glory of the moon, so have there been various abundances of game immediately surrounding the Mattawa. When the Hudson's Bay Company flourished, the big black moose used to stroll down and stretch their necks over the paling of the fort, sniffing inquisitively at the many beautiful objects for sale in the company's store. Joking apart, one had to go but a very few miles, ere running across fresh moose tracks; as for the Kipawa region, the animals were simply jostling one another up there, but no one but a fool would have troubled to go so far merely for moose—they were to be had nearer. Of small deer there were none in those days at the Mattawa. When I say none, I must correct myself, for we did on one occasion discover a solitary Virginia deer track, whereat the guide, Jimmie the Duck, almost fell over sideways with excitement. During a long career he had never stumbled across a deer track north of the Mattawa River. To-day there are few bet-

ter hunting grounds for deer than the lands adjacent to the Upper Ottawa and the Mattawa. The deer have been encroaching upon the range that were once exclusively a moose ground, and the latter animals have been receding east, north, and west. Moose and deer rarely occupy the same country; in fact they never do so unless, as is the case in Maine to-day,

few miles in mooseland, and he will soon find himself in mooseland. Last winter some young farmer friends of mine, not far from Haileybury, which is the Ontario side of Lake Temiskaming, used to make up snowshoeing parties to visit the moose yards on the back of their farm. Happily they were men of the right stamp, and the poor helpless brutes came to no harm at their hands. Just as soon as the Ontario Government permits moose shooting, there will be some grand hunting to the westward of the lake. I say "permits shooting" advisedly, because I understand the Ontario Government, in its wisdom, will not allow moose to be killed previous to November 1st of the present year. This means that mighty few moose will bite the leaves, or the dust, or whatever other sub-



Second Falls on Magpie River, Northern Ontario.

the poor brutes are so hemmed in that it is Hobson's choice. Trappers say that the moose pursue the deer, and make their lives a burden to them until they clear out. This is quite possible, while, on the other hand, it may be merely a natural antipathy which causes the animals to avoid one another.

Comparing the sport to be had at Mattawa twenty years ago with that to be expected to-day, the situation may be summed up as follows: Sport was then rougher, more adventurous, better spiced with danger, but there is a better chance of a varied bag in 1900, than in 1881. For moose the explorer need only take the Temiskaming Colonization Railroad for a

stance an expiring moose is supposed to bite, this season. Moose hunting, when permitted at all, should be legal after the 1st of September. The biggest moose come to call very early some seasons. I think the temperature of the air has much to do with the beginning of the season. When a warm August is succeeded by sharp frosts early in September, the hunter will do well to be upon the ground and ready to try his luck. By postponing the opening of the season until late into the autumn the bag is likely to be restricted to young, immature bulls, therefore, the Ontario Government will not act wisely should it make the opening date later than September 15th, and the

first of the month would serve the purpose better.

There is no better outfitting point than at Mattawa, for, although the old Hudson's Bay Fort has long since disappeared, the great company has crocked stores there which are the envy and admiration of the unsophisticated natives. In them you may buy anything from a plug of tobacco to a yellow and green blanket; only you must not be in a hurry. You see the Indian, with whom they have always traded, has lots of time, in fact time is his long suit. He would cheerfully pass a long summer's day haggling over the price of a marten skin, and then he may require another day to select the articles he is to take in exchange for it. The guides of the region are mostly Frenchmen, with a strong dash of Indian blood in their veins, or else Scotch half-breeds. They are all magnificent canoe-men, a rigorous selection having been going on for many years, and the duffers having all come to violent ends long ago. When canoeing up the rivers you are continually meeting with "Dead Men's Rapids," and these rapids were the places of undoing of the duffers. The canoe-men of to-day are as nearly perfect as any human beings are likely to become; they will pole or paddle all day without showing signs of fatigue; they never make mistakes; never take the wrong side of the rapid, to find out when too late that there is a big rock ahead; and after having made the Monsieur comfortable for the night, are ready and satisfied to throw themselves feet to the fire, and go to sleep on the sharp edge of a stone without further preliminaries.

This is really one of the charms of camping out on the Upper Ottawa. Not only are you sure of good sport, that is if you are any good yourself, but it is very delightful for a city man to get away from the humdrum of his daily life, away back into the woods with these simple, unspoiled children of nature, as companions. They say what they think, and mean what they say, although they are never rude. They have the most profound pity for the average Monsieur's inaptitude; they cannot help regretting that a man showing so many promising qualities should be so badly brought up. In their eyes it is shameful not to be able to chop, and pole, and paddle, and they fail to understand how boys can be brought up in ignorance of these elementary requisites of a liberal education. There is one way, however, in which the sportsmen may force their admiration and respect. Good hunters and trappers as they are, not one in the hundred can shoot as well on the average as his employer. If the employer manages to keep his head level when he gets a snap shot at moose, caribou, or deer, and is able to do himself justice, he will probably astonish his men by what they consider his almost uncanny skill with the rifle. They will talk over that shot around the winter's fire, and you may be sure neither

the distance nor the result will lose by the repetition of the telling.

So if the old Mattawa have passed away there is yet another Mattawa always ready to extend a welcome to a man who follows legitimate sport. It is quite a far cry to that little town, but several men have already found their way there, and, as a rule, those that go there one year return with great regularity as soon as the leaves on the maples and the birches are changing to crimson and gold. There is a fascination about that northern land to which if a man yield but once, he rarely struggles against for the remainder of his natural life. During the early autumn the weather is usually all that could be desired, and the sport is about as good as any one has a right to expect.

Value of the Fur Trade.

Twelve million animals are killed every year to furnish us with furs. Some of these fur-bearing animals, like the sea otter, have been almost annihilated, and the beaver has disappeared from all but the most distant regions. Statistics show a constant increase in the supply of furs, but this does not mean that there are more fur-bearing animals in the world. It signifies simply that under the impulse of the greater demand and better prices more persons engage in hunting and trapping the animals.

Every animal that has hair on it is hunted to-day for its hide. The lion as well as the rabbit, the monkey as well as the cat, the fox as well as the seal, the bear and the otter, animals of the polar region and those that live near the equator, mammals and amphibians. There are some 400 species or varieties of fur-bearing animals, and almost every country in the world furnishes its quota of furs. China sends furs from Thibet, Japan sends martens and badgers, South America a kind of rat. Peru and Chile the chinchilla, Australia the opossum. In 1898 there were 1,300,000 opossum skins sold in London.

The muskrat furnishes the largest number of skins—in 1898 2,651,342. Of course, the retail buyer does not recognize the muskrat in the furs of the marten sold to her, but that is what most of the marten furs are. The collarettes and boas sold at such low prices are muskrat furs, and they wear well. Skunk and the true marten are next in importance. The marten is found largely in Canada and the northern part of the United States, and so are the polecat and the ermine. Fox skins are sold in very large numbers, 250,000 having been used in 1898. But there are all sorts of grades among the foxes. The common red fox is of least value.

The blue fox and silver fox are most valued. The blue fox is sometimes almost as white as the snow on which it lives, and at other times of a darker color. It is this second kind which is most largely sought for. Last year the best specimens

of blue foxes were sold as high as \$1,200 each. But the famous silver fox is greatest of all, for its dark skin is liberally sown with white hairs. It is found mainly in the extreme north, near the Arctic Ocean, in Alaska, Labrador, and Siberia, and, besides, it is very rare. Some specimens of this fur have been sold during the last year for \$1,700.

After the first fall of snow, about the middle of October, the fur hunters bury themselves in the forests, taking with them two dogs, who drag along the sleigh loaded with the necessary supplies. These consist of some blankets, ammunition, traps, sometimes a tent and very little provisions. They rely chiefly upon the animals slain for food. After laying the traps—a work of no small trouble and labor—the hunter must be ever on the alert, for the wolf is ever ready to rob his traps of any animal caught therein, and the hunter doesn't like to catch furs for wolves.

Toward the end of the winter most of these animals disappear, and then the hunters look for beavers, setting their traps through holes in the ice. When the thaw begins their active runs along other lines for the grizzly and common bears may emerge from their winter quarters, and their pelts are in no small demand. After catching as many animals as they can, stripping and salting their hides, the trappers must sell the products of their winter's work. The Indians in Canada bring most of their furs to the forts of the Hudson Bay Company.

Canada and Labrador supply most of the furs exported from America.

Advancement of the Horse.

By C. J. Alloway.

The new Riding Academy that is being erected in New York, by Mr. William Durland, is to be a building of magnificent proportions and is to cost considerably over a million dollars. Some estimate can be formed of its magnitude, when it is mentioned that there are to be one thousand electric lights in the riding ring alone and all other equipments throughout the institution on a similar scale.

At the recent sale of the McGrathiana yearlings, held at Sheephead Bay paddocks, on June 15, eight colts, the get of "Hanover," sold for the unprecedented average of eight thousand seven hundred and fifty dollars; one of these bringing the enormous sum of twenty thousand dollars, and a second fourteen thousand five hundred.

The above facts, coupled with the recent sale of "Flying Fox," for a sum exceeding one hundred and ninety-one thousand dollars, are strong arguments in favor of the phenomenal values to which horses of the best types have risen in recent years. This would appear to be conclusive evidence that notwithstanding the multiplication of electric and other forms of locomotion, the equine species seems to have made more rapid strides of advancement as an important factor in the service of man than ever in his previous history.

REGARDING CERTAIN CHANGES IN THE DISTRIBUTION OF CANADIAN ANIMALS AND BIRDS.

By Chas. A. Bramble.

Although the wholesale extermination waged by our American cousins against the furred and feathered denizens of their forests and prairies has not, thank Providence, been imitated here in Canada, yet we have, during our growth into a nation, been compelled to oust some species, and to very much reduce the numbers of certain others.

One can, of course, easily understand how it is that the wild turkeys no longer strut in the immediate neighborhood of Toronto; and that the moose is not as abundant as was once the case in the outskirts of Hochelaga, but there are certain other movements of the lower humanities which we are at a loss to explain. Let me instance a few of these cases.

Fifty years ago, according to Indian report, and their statements are substantiated, by the presence of many gnawed and discolored antlers on the hillside, elk were extremely abundant throughout southern British Columbia. To-day you might tramp it from the Rockies to the Coast, and the Boundary to the Bridge River, without running across a track of an elk, or even meeting any white man who had ever heard of such an animal being found on the mainland of the province.

The elk are exclusively confined to the Island of Vancouver. They inhabit the very dense and matted forests of the northern end of the island. Few have been shot, as the difficulty of hunting them in such a country is enough to deter all but the keenest. The western woods are not like those of the east. They are full of horrid, prickly shrubs, one of the most abominable of which is fittingly named, "The Devil's Club," and a man requires a buckskin suit and the hide of a rhinoceros, to force his way through in any comfort. It is said by scientific men that this Vancouver elk has become differentiated in the course of ages, and is now a good variety. The elk which was formerly on the mainland, was, if one may judge by cast antlers, identical with that found in the Northwest. Why it disappeared no man can say. The Indians have a yarn to the effect that the animals vanished after a winter of unusually deep snow; but as this is their universal explanation for the disappearance of any animal, it is quite permissible to doubt its correctness in this case. Is it not more probable that an unfortunate murrain, such as has lately devastated South Africa, overtook them, and spreading with awful virulence, exterminated the noble animals? This is only a conjecture, but it is probably correct.

Just across the giant barrier of the Rockies, on the breezy upland plains of

the Northwest, an extermination on a far grander scale took place within the memory of men who are not yet middle-aged. The northern range of the buffalo extended to the southern edge of the great sub-Arctic forest, which stretches its dark mass down to the very banks of the Saskatchewan. In winter the animals drifted before the biting north wind, and the driving sleet, until they reached the valleys of the Platte, and Republican, and other American streams. In the spring they wandered north again, and the half-breed and the Indian found each fall an ever-recurring supply of meat and hides, with which to sustain and clothe themselves during the ensuing winter. Throughout the 70's an awful butchery took place. Hardly any of the slaughter occurred on the Canadian side of the border, but just south of it, in Montana. Fort Benton traders outfitted hundreds of parties to wipe out the animals. Millions of buffalo were shot for the sake of their hides, and the bulk of the killing was done in three years. To-day, from the base of the Rockies, as far east as the Qu'Appelle, the whole Northwest is seamed with a network of buffalo trails and wallows. In that dry climate they will be in evidence for many a long year yet. These trails, and a few woods-buffalo still inhabiting the Smoky River district in the Peace River country, are all that we have of the buffalo.

Manitoba has changed from a wilderness of waving grass to a fertile land, yielding many million bushels of wheat within a very few years. Such changes, as might naturally be expected, have upset the original economy of Nature, and given rise to a new order of things. The elk was once widely distributed in Manitoba; now it is confined to the so-called "bluffs," which are the wooded shores of what was, in ancient times, a vast lake, covering the whole, or nearly all of the land now known as Manitoba. These ridges or bluffs are covered with a growth of mossy-cup oak, and ash-leaved maple. They form the last sanctuary of the Manitoba elk. Under the scanty shade of these prairie trees, the Doukhobor, the Galician, the Scandinavian, and the German, are rapidly doing to death the survivors of a once numerous species.

There have been even more wonderful changes among the game birds of the prairie province. Twenty-five years ago the only species of grouse known to the Manitobans was the sharptail. These birds were always known as chickens, and could be slaughtered by the cart-load in the scrubby brush along the Assiniboine and other prairie rivers. The bird found in the United States, which is the pinnated grouse, was never known to occur, at least in central or northern Manitoba. To-day a bag of grouse will contain about equal numbers of each species, but in a few years, it is to be feared, the prairie hen will have completely vanquished the prairie

chicken. The sharptail has been receding east, and north, and west, before the advance of the pugnacious and more powerful southern bird. The sharptail is a lover of the wilderness; the pinnated never thrives so well as when there are large fields of wheat and corn from which it may take toll. In 1883 the eastern range of the sharptail did not extend much beyond Whitemouth, which is about 50 miles northeast of Winnipeg. Of late stray birds have been shot as far east as the Ottawa, and in the rugged country between Manitoba and the Great Lakes, the birds are very abundant all along the railway track. The cause of this eastern extension is probably the burning of the heavy forest in the immediate neighborhood of the line. This land is now growing up in that light, mixed growth, which follows the destruction by fire, of the original heavy timber. It is, therefore, at present, an ideal country for a bird which prefers the scrub to the open country, and which, on the other hand, will have nothing to do with dense woodlands; but I am afraid this abundance of sharptail between Lake Superior and the Red River will not be a permanent condition. During the next twenty-five years the second growth will be replaced by young forests of Jack pine and spruce; then it will no longer suit the habits of the sharptail, and the bird will gradually become scarce. The only way these grouse could be preserved would be by keeping large tracts of land burnt off in rotation. This, of course, is not a policy which could be advocated by any sane man, no matter how enthusiastic he might be on the subject, and the greater care now taken to preserve the timber of west Ontario from fire, almost assures us that the days when hundreds of thousands of acres of standing pine were destroyed, through carelessness or criminal negligence, are past.

In the older parts of Ontario the Virginia deer have been extending their range north and west and are now found in regions where they were unknown ages ago. In Quebec, also, between the Ottawa and the Great Lake St. John, there is a country of lake and forest which is becoming most abundantly stocked with deer. We in Canada are particularly fortunate in having such large unbroken forest areas. These form perfect sanctuaries for game, and ensure an ample breeding stock for future generations.

These few brief notes by no means touch upon all the changes of habit that are known to have occurred in the Dominion, but they include the more noticeable. It may be added, as it was omitted, in the allusion to Manitoban changes, that the queer little burrowing owl, which shares with the marmot and the rattlesnake, the sandy burrows of the western prairie-dog villages, has found its way into Manitoba, where it has always been unknown. The Colonies are creeping across the province in a north-westerly direction, and have been noticed recently in the neighborhood of Brandon.

A Novel Competition

To the Citizens of Montreal:—

The town of St. Gabriel de Brandon is situated on the shore of Lake Maskinonge which contains excellent maskinonge fishing. While all reputable strangers are welcomed to St. Gabriel, it is desired to specially advertise the town and bring its attractions to the notice of all Montreal citizens, and the town council has, therefore, decided on the novel means of directing their attention to St. Gabriel by offering prizes for the largest maskinonge caught between July 1st, 1900, and September 30th, 1900, inclusive, by a citizen of Montreal. The prizes to be as follows:—

One 1st prize.....	\$20.00
One 2nd Prize..	15.00
One 3rd Prize..	10.00
One 4th prize..	5.00

Only citizens of Montreal and its suburbs may compete, and proof of citizenship satisfactory to the Mayor of St. Gabriel de Brandon will be required before the prize is paid to the successful contestant.

Contestants will be allowed to use only the method of fishing called "trolling" and the trolls used shall not consist of more than three hooks each.

Trolling is to take place only in the daytime, between the hours of daybreak and sunset as shown in the Canadian Almanac.

On landing after trolling, each contestant will be required to exhibit the largest maskinonge he has caught to Z. B. Germain, secretary, who will measure and weigh same, the measurement to be from middle of tail to tip of snout; the weighing to be on Fairbanks scales, the weight to be of the fish undressed precisely as caught. A portion of the fish (the tongue) will be removed by weigher and destroyed. A certificate of weight and length will be made and signed in duplicate, and one portion handed to the contestant, who must furnish his or her full name and address to the weigher before certificate is delivered.

On October, 1st, 1900, the Judges, Messrs. J. E. Archambault, M.P., Mayor St. Gabriel de Brandon, E. Beausoleil, J. B. Gauin, Louis Coutu and A. H. Olivier, will decide the result of the contest, which will be announced by circular and in the public press, and thereupon the prizes will be awarded.

J. E. ARCHAMBAULT, M.P.,

Mayor, St. Gabriel de Brandon

June 30th, 1900.

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.

THE report of the Chief Inspector of Timber and Forestry for Canada, which has now been issued, is of special interest, as being the first submitted by Mr. E. Stewart, in that capacity, and, while of necessity there is but little work yet done, the conclusion from the reading of this report must be that the timber lands under the control of the Dominion Government are of sufficient extent and value to justify fully the appointment of a special officer to deal with them.

The principal wooded areas which will be under Mr. Stewart's jurisdiction are described as follows:—

The first, which might for convenience be called our Great Northern Forest, extends from Alaska on the west to Hudson Bay on the east, and from the North Saskatchewan river, and the sixtieth parallel of latitude on the south to the barren lands of the Arctic region. East of James' Bay there is the Labrador district.

Next we have a timbered area of considerable extent lying north of the Province of Ontario and south of the North Saskatchewan river, and the same belt extends westerly, growing narrower till it reaches its apex at the junction of the north and south branches of the Saskatchewan river at Fort a la Corne.

Proceeding westerly the next large timber belt we meet with is along the eastern slope of the Rocky Mountains and extending from the North Saskatchewan southerly to the international boundary.

The next in order would be the British Columbia railway belt. This tract of country was granted by the Province of British Columbia to the Dominion as a contribution to the latter for the building of the Canadian Pacific Railway, and is in round numbers about five hundred miles in length by forty miles in width twenty miles on each side of the line of railway, and contains an area of 20,000 square miles, or 12,800,000 acres. The most of this area is well covered with splendid timber.

The first object which will be aimed at is the preservation of the timber from fire, for in this, as in almost all forestry reports, that agent of destruction is found

to be the one most to be dreaded. The Mounted Police have from time to time been employed in enforcing the Fire Acts of both the Northwest Territories and the Province of Manitoba, and there is no question that in many cases they have done excellent work, and wherever their services can be utilized in the future it is desirable that they could be continued; but in view of the extent of the country to be looked after and the limited number comprising this force and the other duties incumbent on them, it is impossible for them to do all that is required in this respect. Such being the case, it will be necessary to provide additional assistance for the purpose.

Mr. Stewart considers that some such method of fire guardianship as has been employed with so great a measure of success in Ontario and Quebec could advantageously be arranged for Manitoba and the Northwest. Under this system the Government and the license holders jointly bear the cost of the service, and the results of its adoption have been very satisfactory to both parties, as shown by the statements of the lumbermen and the fire statisticians.

A very important timber area, particularly for its effect on the system of irrigation for the semi-arid district in the Northwest Territories, is that along the foot hills of the Rocky Mountains. The reports of the Irrigation Branch, as quoted by Mr. Stewart, call attention to the absolute necessity of preserving this timber if a proper and regular supply of water is to be assured, and also point out the widespread destruction by fire which has occurred. There is no phase of the subject of greater importance than this and it is one which deserves very careful consideration. The Government has already acted in the matter in so far as to set apart the portion of this tract extending from the Bow river to the 49th parallel as a timber reserve.

A number of other reserves in different parts of Manitoba and the Northwest Territories have been set apart by the Government for their timber and are withdrawn from settlement and also from sale, lease or license. In this connection, Mr. Stewart makes the following statement:—

"Recognizing the wisdom of retaining a portion of the public domain for the production of timber, not only for its commercial value but also for the various beneficial effects that the forests have on the

climate and physical character of a country, it is probable that this is only a beginning in that direction. And in this connection it cannot be too strongly urged that further reserves should be set apart well in advance of settlement, and in order that this may be intelligently done, a thorough exploration of the unsurveyed portion of our public domain should be undertaken and kept up, so as always to be ahead of the settler. This system, in addition to its utility in the way indicated, would in the end be found economical, inasmuch as many districts which otherwise would be surveyed, but which, from these reports, would be found unfit for settlement or be recommended for timber reserves, could be left unsurveyed, and the expense thereof saved to the Department."

The preservation and management of the timber now standing is however, only one side of the problem which has to be dealt with. The treeless character of our Western plains forces itself on the notice of every visitor to the West. And this condition aggravates itself. For the result of the lack of protection of the soil from sun and wind renders the growing of trees a difficult matter, while the absence of any covering to retain the moisture which may be deposited in the form of rain or snow, adds to the preliminary obstacles that surround the problem. The results accomplished by the efforts of the Experimental Farms, the Canadian Pacific Railway, Mr. Pearce, and others, demonstrate, however, the possibility of success in this direction, and the experiments in tree planting so far conducted have shown their advantages in themselves and also their usefulness as a protection to the growing crops. A number of interesting statistics are quoted from the reports of the Experimental Farms to show the varieties of trees experimented with, the cost, &c.

Mr. Stewart recommends that the Government should encourage the people of the country to take up the work for themselves by furnishing them with information on the subject and also with seed, cuttings and young trees of desirable varieties. Much may be learned from visiting the Experimental Farms, but Mr. Stewart suggests that in addition forestry lecturers might attend the meetings of the Farmers' Institutes on the prairies, and give lectures of instructions on tree planting, following this up by distributing a short treatise of instruction on the subject, and also by an announcement of the manner in which the settler could be supplied free with seed, cuttings or young trees, from the Experimental Farms or elsewhere.

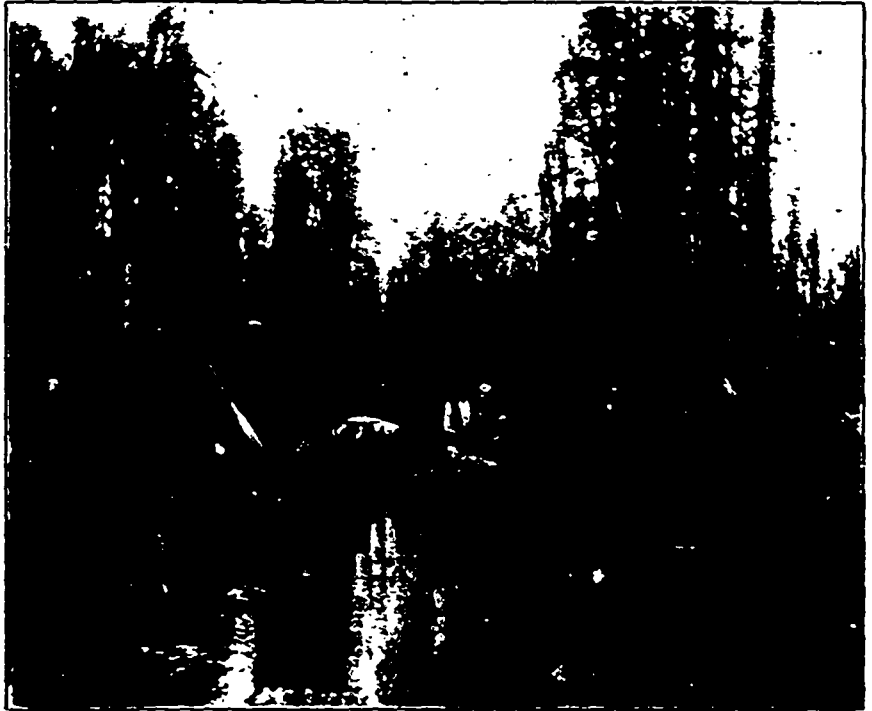
In conclusion the whole case is summed up in the following statement:—

"The whole forestry problem of our Northwest may be included in the two words: conservation and propagation. Conservation or preservation of what we have at present growing in a natural state

involves, first, prevention as far as possible destruction by fire, and, secondly, a judicious system of cutting the timber required for use so as to retain for all time a continuous supply from those districts that are better adapted for the growth of timber than for agricultural purposes.

So much has already been said on the subject of protection from fire that it is unnecessary to say anything more except, in conclusion, to recommend that before next season arrives a system of guardianship be instituted. It will be ne-

people have a knowledge regarding their cultivation, which it would be safe to say a large percentage have not, the trouble and expense are incurred to little advantage, and where failure is the result it discourages others from attempting the experiment,—if such a word as experiment is permissible; whereas, it can scarcely be doubted that if one farmer in a neighborhood make the attempt and is successful, his example will be followed by others, and a healthful stimulant to emulation will be



On a Tributary Stream of Oba Lake, near the Height of Land, Northern Ontario

cessary to divide the timber districts so that in case of necessity rangers or guardians may be employed at short notice. In certain exceptionally wet seasons, such as the last, it may not be necessary to employ any, while in others it may be necessary to do so in certain parts and not in others. The owners of timber limits should bear a fair and equitable proportion of the expenses of the guardianship where there are limits within the guarded districts.

With regard to propagation it is also unnecessary to repeat what has been said, but its importance is so great to the present settlers on the plains and so far-reaching in its effects to the country and to those who will in future make their homes there, as to warrant an earnest effort being made to encourage the planting of trees by the settlers. The Experimental Farms are at present doing an excellent work in supplying seeds, cuttings and young trees to those settlers who make application for them, but unless these

afforded which cannot fail to be of lasting benefit."

Mr. Stewart is now in the West on a tour of inspection and for the purpose of arranging the organization necessary for carrying out the plans he has outlined in his report.

Scientific Test of Pine.

Mr. Duff, of the School of Practical Science, has been commissioned to proceed to Algonquin Park to study the location of the timber there, and particularly the pine. This will be followed up by scientific tests as to the strength and durability of pine and other Canadian woods for building purposes.

The Ontario Government has arranged with Professor Macoun, of the Geological Survey, Ottawa, who is known as the leading botanist in Canada, if not on the continent, to investigate and report on the flora and fauna of Algonquin Park.

Professor Macoun is a member of the executive committee of the Canadian Forestry Association, and we hope to give to our readers some sketches from his pen in connection with his work in the park.

The Ontario Government are sending out at the beginning of this month ten parties to explore the northern portions of Ontario. Their work should result in very much additional information as to the resources of new Ontario, and should place the Government in a better position to put them to a proper use. The examination and proper use of the resources, especially of timber, is one of the objects, the promotion of which the Forestry Association lays down for itself in the statement of its aims, and its members can very heartily approve of the action which has been taken.

A Canadian manufacturer of paper, in connection with the question of the increase of cost in that article, recently stated: I think we will have to give up the notion of cheap paper. What are the facts? The great bulk of the paper used for newspapers is made from wood pulp. Wood is the basis of this class of paper. What are the conditions to-day in regard to timber? Last winter there was very little snow in the early part, but the men in shanties had to be paid and fed just the same. We had little snow until March, and after that we had an early spring. The water in the creeks is phenomenally low, and the wood cannot be brought down. Every difficulty increased the expense. Moreover, note this, that whereas a few years ago the wood was at the hand, so to say, at the present time, whether in the St. Maurice or Saguenay districts, the men have to go in fifty, a hundred and a hundred and fifty miles. There is still plenty of wood, but it is being cut into, it recedes, and as it recedes it becomes more expensive to procure. The paper manufacturers pay from 25 to 40 per cent. more for material than they did some time ago. This applies to ground and chemical wood. Still further, those who manufacture manilla paper have to pay an increased rate for hemp. The same remark applies to colored rags. Indeed, prices have gone up in connection with every feature of the manufacture of paper. If you wish a new piece of machinery you find the price 25 per cent. higher than would have been the case a few years ago. So it should be well understood by the public that the manufacturers are not making any more profit when they raise the price of paper. They are not combining against newspaper publishers or any other body, they are simply endeavoring to secure a living profit upon their output. I really do not think very cheap paper can be expected again; at the same time I do not think there need be alarm over a great increase. If we had plenty of rain, even now, the situation might improve. It is largely a question of wood and water. The creeks are low and

the wood cannot be brought down. A plentiful supply of rain would swell the creeks, and swelling the creeks would affect the price which the manufacturer charges and which the publisher pays."

Forest Tree Planting in the West

The vast prairies of the west have been the theme of song and story from the days when they were first trodden by the foot of civilized man, and the "Great Lone Land" has always had its fascination for the adventurer and the pioneer, and has developed its own peculiar and interesting types of character. These wide-stretching plains seem to open up a new and boundless world and to give room to breathe and expand. But to the pioneer of settlement the prairies present their own special difficulties, less arduous in some respects, than those which beset the early settler in the older provinces in their struggle with the forest, but bearing their own freight of discouragement and disappointment. The grasshopper and the frost, sometimes flood and sometimes drought, wind and hail, all in turn, had to be battled with, and the openness of the country left it peculiarly exposed to such attacks.

The bareness of the landscape is a feature which has been commented upon again and again, and the only means by which this character could be changed by man, the planting of trees, has been given more or less attention for many years. Belts of trees would not only add beauty to the scenery, but would be of great value for fuel, as shelter to the growing crops, and for their effect on the climate.

The Hon. David Laird, in submitting the report of the Department of the Interior, in 1876, stated that during his journey from Fort Garry to Qu'Appelle, in the summer of 1874, nothing impressed itself upon his mind more than the treelessness of a vast portion of the country over which he passed. Day by day as he crossed the wide extend of prairie utterly destitute of trees the question presented itself: How is the settlement of these prairies possible if the settler is without wood for fencing, building or fuel? His attention having been called to the work done in tree planting in the United States, he instructed the Surveyor-General, Col. J. S. Dennis, to obtain all available information on the subject.

The Surveyor-General apparently considered Hon. L. B. Hodges, superintendent of tree planting on the St. Paul and Pacific line of railway, as the most competent authority on the question, for he appended to his report some suggestions on tree planting taken from an essay of Mr. Hodges, and he also quoted the assertions made by that gentleman which he deemed that his five years' experience justified. Some of these statements were that at a mere trifling expense the stockyard and buildings on the bleakest prairie home-

stead may be surrounded in five years with a belt of trees forming a wind-break and affording effectual protection; that a grove of trees can be grown as surely as a crop of corn and with far less expense in proportion to its value; that apparently worthless prairie lands can, by the planting and cultivation of timber thereon, be sold for \$100 per acre within twenty years; that the net profits of land properly planted and cultivated with trees will within ten years realize at the rate of ten to one as compared with the profits attending the raising of wheat. The Surveyor-General added that other even more forcible propositions were put forth by Mr. Hodges, but he forebore to quote them and perhaps it was well, for in the light of later experience, even those which are quoted are sanguine enough to suggest recollections of the predictions which characterized the days of the "boom."

As a result of the investigation it was decided to amend the Dominion Land Act so as to provide for "Forest Tree Culture Claims," similar to those provided for by Act of Congress, and in 1876, an amendment was passed authorizing the granting of a quarter section of 160 acres to a settler after the expiry of six years from the date of entry on condition that eight acres of the land had been broken and prepared for tree planting within one year after entry, an equal quantity during the second year and sixteen additional acres within the third year after such date, and that a similar scale had been followed in tree planting commencing from the second year, the trees to be placed not less than twelve feet apart each way. Each applicant for entry would require to make an affidavit that the land applied for was open prairie and without timber.

Under this amendment 253 claims, covering an area of 40,480 acres, were taken up during the years 1877 to 1879, but only six entrants completed the duties necessary to entitle them to patent, the last patent being issued only so recently as the 31st August, 1895. Most of these claims were in the district along the Red River, others were farther west along the boundary and some even so far north and west as the Minnedosa district. The claims for which grants issued were in Township 2, Range 4, East; Township 3, Ranges 5 and 6, West; and Township 2, Ranges 12 and 14, West.

The reason for the practical failure of this experiment was undoubtedly the lack of knowledge of the trees suitable for growth in the West, and of the proper methods of caring for them. The fact has gradually forced itself upon the public mind that agriculture cannot be carried on successfully except by those who have special knowledge of and training in it, and it is largely the same with arboriculture. The grower must know what to plant, how to plant it, and how to care for it afterwards.

At that time every individual tree grower had to make his own experiments, but, as a result of the work of the Experimental Farms in Manitoba and the Northwest the whole question of tree growth on the plains has now been placed in an entirely different position. At these farms, situated at Brandon and Indian Head, respectively, experiments have been carried on for a number of years and the results are now available for general information.

The trees which have been found most satisfactory for planting for wind-break belts are the Box Elder or Manitoba Maple, the Elm, the Green Ash and the Poplars. The Poplars are fast growers, but the wood is soft and not very durable. The Elm and Ash form a firm wood but grow slowly. The tree which has, on the whole been found most satisfactory for general purposes, is the Manitoba Maple, as it grows rapidly and strongly. Shelter belts are most useful on the north and west sides of the land to be protected, as it is from these directions that the prevailing winds come. Satisfactory belts have been formed by planting the trees five feet apart each way, twenty rows in a belt, making a shelter 100 feet in width. Thick hedges have also been used as wind-breaks, made by planting two and three rows of trees three feet apart, the trees being placed about two feet apart in the rows, and these have soon formed excellent shelter.

The cost per acre of planting the trees and cultivating until they are large enough to shade the ground and prevent weeds from growing so that they need no further care, is found at Brandon to be \$16.25, and at Indian Head from \$12 to \$18.

Trees may also be grown from seed, the most hardy being produced from seed found in the country. Large quantities of the seed of the Manitoba Maple have been distributed from the experimental farms and as this tree produces seed in six or seven years there will soon be plenty of it available.

There have been distributed from the Indian Head farm 220,000 young forest trees and cuttings and 4,000 lbs. of tree seeds, and from the Brandon farm 600,000 trees and cuttings, and 1,800 lbs. of seed.

While the experimental farms have done very much in the distribution of seed and cuttings to the settlers, there seems to be still an opening for some additional work in bringing the results of the experiments before the people most interested, and in assisting them to take advantage of such results. If the settlers could have to some extent the personal supervision of competent tree planters in the setting out and subsequent care of the plantations, success would be reasonably certain, and each such successful plantation would be an object lesson to the whole neighborhood. By the resume of the report of the Chief Inspector of

Forestry for the Dominion in another column, it will be seen that he is projecting a plan of organization along these lines.

The Division of Forestry of the United States have made arrangements for laying out plantations for settlers, precedence being given to lands considered most likely to furnish most useful examples after a study of the ground has been made. An agreement is made between the owner and the Secretary of Agriculture which provides that the Department, after personal study on the ground by its agent or agents, shall prepare a plan for planting and caring for a forest plantation, wood lot, shelter belt or wind-break on the land; that the plan shall be prepared for the purpose of promoting and increasing the present value and usefulness of said land to its owner and to develop and perpetuate a plantation of forest trees upon it, the Department to supervise the execution of the plan so far as may be necessary and to have the right to publish and distribute it and its results for the information of farmers and others whom it may concern. The working of this plan in the United States will be watched with interest, as it may be advisable to adopt a similar plan in Canada, if it is found to work satisfactorily and give the desired results.

The report of the annual meeting of the Forestry Association is ready for distribution. The design on the cover is very good and is the work of Mr. L. Pereira, the assistant-secretary of the Department of the Interior. Great difficulty was experienced in obtaining suitable illustrations for the report, as this branch of photography does not appear to have been given the attention it certainly deserves. The secretary will be pleased to send a copy of the report to anyone interested in timber or forestry.

We clip the following as a sample of a paragraph which appears occasionally in our newspapers:

ANOTHER TOWN BURNED.

Elmira, N. Y., May 8.—All the buildings in the village of Corbett, Potter Co., Pa., were destroyed by forest fires this afternoon and several people were badly burned, the inhabitants fled to Galeton, and many of them are now quartered in the Buffalo and Susquehanna Railroad station there.

The fact that such fires still occur, even in long settled districts, as witness the great Casselman fire of a few years ago, points to the necessity for a continual agitation of the question of the prevention of forest fires not only for the value of the wood destroyed, but for the danger there is to the homes and lives of those who may be in their path. The long spell of dry weather which we have had this spring was particularly favorable to the starting and spread of forest fires, and we cannot too frequently or urgently impress the necessity for care on the part of all those

who use fire in the woods, and of an intelligent study of the means of preventing their spread. The question of making compulsory the building of fireproof houses and of preventing the piling of lumber within the city limits in being discussed with much warmth and interest at the present time in Hull and Ottawa. Ottawa has progressed somewhat since the days when it was described by a certain distinguished person as "a city of lumber piles and civil servants," but the lumber industry is still one of the main sources of wealth, although as a result of the change in conditions the sawing of the lumber is not concentrated in Ottawa to anything like the extent it was some years ago.

The change, as well as the still great importance of the lumber trade in Ottawa is illustrated very clearly by the statement made by Mr. J. R. Booth before the Board of Trade of that city.

The fires at Hull and Ottawa illustrate very forcibly the dependence of a large number of our citizens upon the continuance of the wood industries in their various forms. Practically the whole of the City of Hull, and a large part of the population of Ottawa are more or less directly dependent on the lumber mills, and the pulp and paper and other industries. If the two largest establishments were not to resume operations it would mean almost the wiping out of the City of Hull, and would give the prosperity of Ottawa a blow from which it would take long to recover. The stoppage of the manufactories would not be a greater disaster than the loss of the sources of supply through waste or improvidence, and it is here that the work of the Canadian Forestry Association should come in to call attention to the necessity of taking stock of our forest resources and providing for their proper management, so that they may be a continuous source of wealth to the country, and may be available for those industrial purposes for which they will always be in demand.

The wooden house may be a more important social factor than many of us are inclined to think if the following statement by a recent American writer can be accepted:

"Stone and brick are the almost exclusive building materials of Europe, and in our larger cities these materials, together with iron used in large edifices are gradually driving out the typical American "frame" house. Not unlikely the latter will have practically disappeared from the United States in the course of fifty years. If so it is by no means a thing to be desired. Stone and brick houses are, no doubt, more lasting and substantial than wooden houses, but also far more expensive. If the average American family of small means in the future will not be able to obtain the cheap and commodious frame dwelling in which it lives to-day that will mean a long downward step in our stand-

ard of life towards the European level. It will mean the spread of the tenement house from the few large cities to the small towns, the disappearance of the one family cottage with its lawns and garden patch from the villages. It will mean the loss of one of those advantages by which we have kept our economic superiority to the older countries, another widening of the rent between rich and poor, another difficulty thrown in the path of a democratic form of society."

Canada has taken first place for its timber exhibit at the Paris Exhibition.

At the recent meeting of the Ontario Lumbermen's Association, the cut of lumber for the Georgian Bay district for the year 1900 was estimated at 470,000,000 feet.

Dr. Saunders, director of the Experimental Farms, who has just returned from the West, reports an interesting illustration which he noticed on the Indian Head farm, of the value of a shelter belt. A field of grain, which was growing in the shelter of a belt of green ash and Manitoba maple, about ten years old and fifteen feet in height, was found to be growing well and in good condition, to a distance of 750 feet from the shelter, but beyond that the grain was poor, the sand having been blown upon it by the wind. The snow which was held by the shelter would also provide moisture in the spring to give the grain a more vigorous start.

The forestry association in Saratoga is reported in the press to be paying 20 cents a quart for tent caterpillars which were destroying the trees of that city. They gathered barrels of them and paid out to the pickers \$250. The Ontario Department of Agriculture report that these caterpillars are doing considerable damage in Western Ontario. The webs of these pests make them easily noticeable in the fall and a careful effort to get rid of them at that time would help to lessen their depredations in the following year. The study of such literature as "The Birds of Killingworth," particularly if it were under the tuition of such an able bird advocate as the preceptor described in it, might also help towards the same result.

A canine constable has been added to the police force of Dewsbury Borough, England, in the shape of a rough-coated Airedale terrier, who nightly goes the rounds with the men. He formerly belonged to a Mr. Williams, but displayed such a predilection for the police force that the owner turned him over to the chief constable, who obtained a collar identifying the animal with the constabulary. He goes about all night with the men, visiting them impartially, and recognizes none but members of the force in uniform. He recently followed the men to church.—Ex.

AT THE KENNELS

Conducted by D. Taylor

A meeting of the executive of the Montreal Canine Association was held in the Natural History Society rooms on Thursday, 23th ult., the president, Mr. Jos. Reid, in the chair, the other members present being Messrs. Jos. Quinn, Alex. Smith, R. S. Kellie, S. P. Howard, A. H. Sims, W. Ormiston Roy and D. Taylor. On motion, it was decided not to hold a bench show this fall. The large number of curs running loose in the city was much commented on, and it was finally moved by Mr. S. P. Howard, seconded by Mr. Allison H. Sims, "That a committee be appointed to ascertain the

at a decision. Whatever may be thought of the wisdom of the course adopted, there can be no question that the committee have acted for what they believed to be in the best interests of the Association, and instead of a second show this year, have resolved to spend their surplus energy in stirring up the civic authorities to take some action in regard to the abnormally large number of unlicensed and seemingly ownerless curs which infest the streets of Montreal. This is certainly a commendable undertaking, and we hope they will succeed in their efforts. There is no question that the dog nuisance has



"Earl of Shrewsbury," the property of Messrs. F. and A. Stuart, Montreal.

best means of enforcing dog licenses, and ridding the city of Montreal of mongrels and the nuisance it is now suffering under." This was unanimously carried, and a sub-committee, consisting of the mover and seconder, together with Mr. John A. Pitt and the secretary, was appointed to enquire into the matter and report. Some routine business was transacted, and the meeting adjourned.

That there will be some disappointment amongst members of the Canine Association and dog fanciers at the resolution come to by the executive of that body not to hold a bench show in the fall goes without saying, but the conclusion was not arrived at without serious consideration and after weighing carefully all phases of the situation. The difficulty of securing a suitable place at a time to come in with the regular circuit, and the short interval that would elapse between the two shows, were the main factors which weighed with the committee in arriving

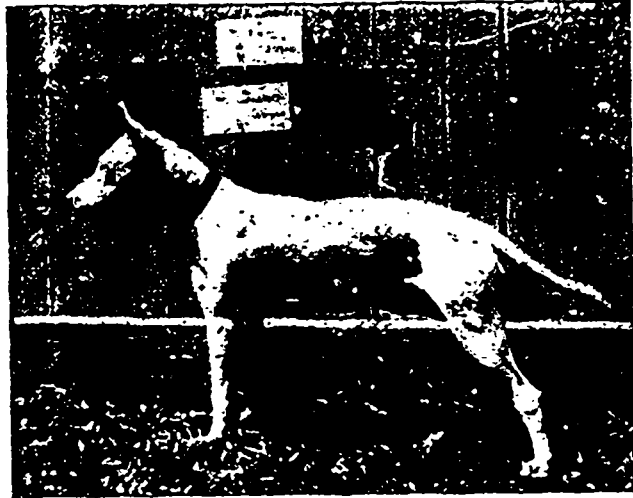
at a decision. It has been frequently said that in no city on this continent are so many uncared-for, mangy mongrels to be seen prowling around the streets, a source of danger to children and a nuisance to citizens generally, whose slumbers are so often disturbed by the howls and yelps of these midnight assassins of rest. The dog owner who really cares for his dog will not hesitate to endorse any measure, however drastic, which may be taken to rid the citizens of this annoyance.

We have to record the advent in Montreal, since our last issue, of two very valuable dogs, one an Airedale terrier, the other a St. Bernard, and both eminently representative of these widely-apart breeds. The first of these was imported by Mr. Jos. A. Laurin, the well-known fancier, who has lately manifested a strong interest in the "gentleman from the Valley of the Ayr." He came over in the steamship Camboman, having been purchased from Mr. Stuart Noble, of Cheltenham.

owner of the leading kennel of this breed in England, and is known by the kennel name of Briar Ranger. He is quite young, only two years old, having been born on June 15th, 1898, and therefore with luck has a great future before him. He is a tip-top youngster in every respect, and teems with the best show and reproducing blood, combining a double cross of the most valuable Briar blood. He is a brother to Rock Ferry Test, a big winner, and sire of champion Rock Salt, winner of over 200 prizes; and champion Master Briar, the greatest show and stud dog of his generation. He greatly resembles his illustrious brother, being a big, upstanding youngster, with great bone, grand legs and feet, and a good neck and shoulders. His head is long, with good jaw and eyes. Mr. Theo. Marples, the eminent English judge, in *Our Dogs*, says that he is probably the best colored Aire-dale on the bench to-day, and further adds: He has won second at Keighley, first and special Nottingham, and second Crystal Palace, only times shown, and there is no doubt he will largely supplement these victories in the near future. Mr. Laurin is to be congratulated on this addition to his kennel, which now contains some of the best blood on this side of the herring pond, and we trust that his enterprise will be rewarded with that success which it deserves.

The other animal is the noted St. Bernard, Earl of Shrewsbury, which came out on the Vancouver, having been purchased and imported by Messrs. F. & A. Stuart, 15 Hospital street, who may now claim to have one of the finest specimens of this breed living. Earl of Shrewsbury was sired by Ch. Sir Hereward, one of the greatest of stud dogs ever known, is a litter brother to that other great dog, Ch. Young Bute, and has himself gained over 100 first prizes and specials, his latest win being at Birmingham, November, 1899, over Ch. Leofric, the Crystal Palace winner, which stamped him as the best dog of his breed in England. Earl of Shrewsbury is a magnificent rich orange color, with the right texture of coat, flat and long; his markings are perfect—dense dark shadings, with correct white blaze running through to white collar, white legs, muzzle and tip of tail; his head is most typically formed, with great depth of side face, and is wonderfully deep in muzzle, a nicely formed dark eye, showing plenty of that expression so characteristic of the saintly breed; his ears are small, well shaded and nicely carried; he stands on good straight legs, with plenty of bone. He has beaten most of the leading dogs of the day in England, and in 1898 won more first prizes under different judges than any other St. Bernard living. *Our Dogs* says of him: "Earl of Shrewsbury's strongest points are, perhaps, his large deep frame, exceptionally strong, straight limbs, legs and feet like a fox-

hound, good movement; and these qualities, added to his grand head, possessing a deep forehead and benevolent expression, render him a very formidable opponent indeed. He is as active almost as a terrier in the ring, and appears like going on for a long time yet." The English Kennel Gazette also adds its quota by describing him as "a grand dog, combining size with quality—in fact, all through a typical dog." With this latest addition to their kennel, and what they already possessed, the Stuart Brothers can now hold their own, in the matter of quality,



"Sally," a Bull Terrier, which has won several Prizes, the property of Dr. J. H. Springle.

with any breeder on this continent. Earl of Shrewsbury should make a capital mate for their fine bitch, Rosey O'Grady, and we hope to hear of some young stock before long.

A very nice little impromptu show was held under the auspices of the Canadian Collie Club Dominion Day at Logan's Farm, only two or three days' notice was given to the members, notwithstanding which yet there were a large number of exhibits forward, and those of the primest quality. The place is an ideal one for an open-air show, and quite a large number of visitors, who somehow or other managed to get wind of the event, were on the ground, among them being a great many ladies. The judging was done by Mr. Alex. Smith, and seemed to give entire satisfaction, although he had a very difficult task to perform, especially in the puppy classes under six months, of which there was a large entry. The following were his awards:

Class I. (dog puppies under six months, 17 entries)—1, Mountain Rob Roy, Davie Alexander, Victoria Town; 2, Logan's Strathspey, Joseph Reid, Logan's Farm; 3, Mount Royal, Craikstone Kennels, Petite Cote (John Cumming).

Class II. puppy bitches under six months, 13 entries—1, Mountain Lassie, Davie

Alexander; 2, Whin Blossom, Jos. Reid; 3, Sable Beauty, D. Alexander.

Class III. (dog puppies between six and twelve months, 7 entries)—1, Dominion Hero, Isaac Stewart, Ann Street. Other prizes withheld.

Class IV. (puppy bitches from six to twelve months, 9 entries)—1, Lady Gwen, H. Thomas; 2, Craikstone Laurel Lassie, Craikstone Kennels; 3, not awarded.

Class V. (novice dogs, 8 entries)—1, Craikstone Day Star, Craikstone Kennels; 2, Spion Kop, P. Gravel; 3, Dominion Hero, Isaac Stewart.

Class VI. novice bitches, 7 entries)—1, Blair Athol Patti, W. Elliott, St. Lambert; 2, Lady Gwen, H. Thomas; 3, Heather Beauty, D. Coull.

Class VII. (open dogs, 5 entries)—1, Knight Errant II., Coila Collie Kennels; 2, Craikstone Day Star, Craikstone Kennels; 3, Calendar Bruce, Coila Collie Kennels.

Class VIII. (open bitches, 4 entries)—1, Blair Athol Patti, W. Elliott; 2, Heather Beauty, D. Coull.

Knight Errant II. is beginning to round into shape. He was looking almost at his best at the show and is undoubtedly one of the best dogs of his breed in the country. In Craikstone Day Star, the Craikstone Kennels have a young dog that will be hard to beat anywhere. Mr. Alexander has a promising lot, and he well merited the success he met with. Mr. Smith said that the young puppies shown were the most promising lot he had ever handled in the course of his long experience, and showed that good blood was beginning to tell in this part of Canada.

Mr. Reid's Clover Blossom, a full sister to the celebrated winner Heather Blossom, whelped a litter of fourteen the other day. They are about equally divided as to sex, and are by Knight Errant II., imported

last May, and if we mistake not, the first of his get in this country. They are all beautifully marked, and out of the lot there ought to be some prize-winners. Lucky, ain't he?

Mr. G. M. Carnochan, of New York, the well-known terrier enthusiast, donated a very handsome special to the fox terrier section of the Ladies' show at the Royal Botanic Gardens, Regent's Park, London. It consists of a lady's brooch, in the form of a model of a fox terrier, set in diamonds, and was for the best smooth or wire-haired in the show. The show was held June 28 to 30 inclusive.

A recent number of the San Francisco News Letter rather caustically criticizes the "all-round judge," going for that much-abused personage in the following strain: "The system of judging is radically wrong, obsolete, way behind the age, and bound to dissatisfy everyone but the favored prize winners. One man is expected to judge the whole of the exhibits, from a Pomeranian to a St. Bernard, from a fox-terrier to a greyhound. Now there is no living being, no matter how great a sport he may be, who can claim to be expert in every kind of dog. Nor can any man, in the limited time at his disposal, give fair consideration to such an enormous number of animals. At the most he can bestow but a hasty glance upon each, selecting those which please his fancy most, regardless of breeding or points. The result is that the show has fallen almost entirely into the hands of professional breeders who exhibit the same prize winners over and over again for purely business reasons. Without competent judging the best managed show is bound to be a failure, and there never will be competent judging as long as the whole business is placed in the hands of one person. Each class, or group of similar classes, should be judged by a committee of experts in that particular kind of dog, who would take time to examine the points of each exhibit, and who would have the knowledge requisite to enable them to give a sound judgment." While there are objections to the all-round judge, such as stated above, we very much doubt whether the plan proposed is workable. With the large number of distinct breeds usually on exhibit at a show, where are we going to find juries of specialists for each class, and how would the expense of such juries be met? Until these questions are satisfactorily answered we are afraid things will have to go on in the old way. In regard to the professional breeders, we are inclined to think if it were not for them and their exhibits there would be rows of empty benches at most of our shows, and we know as a class that they are deserving of more credit than abuse, as they frequently put themselves to considerable trouble and

expense to "help along the show" without the inducement of present reward, speculating rather upon prospective profits by the sale of young stock. And it is scarcely correct to say that the same prize winners figure over and over again. Of course, where an animal is of exceptional merit, having most of the recognized points, how can any judge avoid giving it the blue ribbon? At almost every show there are surprises, and we often see an unknown dog placed ahead of one which had hitherto swept the board, for the simple reason that the judge (probably the same) found in the new-comer one feature on which he laid particular stress more pronounced than in the other. We might have more changes of judicial blood with advantage, and we might have amateur specialists (though these have not always been found satisfactory) to judge a portion of the classes, but for an authoritative opinion commend us to the man who makes a study of the dog in theory, and who is a practical breeder himself.

The death is recorded of the veteran trainer, Sandy Grant, at his residence at Rockeliffe, Scotland, where he has resided since his retirement into private life, and where also previously he trained the celebrated kennel of the Earl of Haddington, for whom he won the Waterloo Cup in 1880, having previously run up to Sea Cave with Bendinere (Lord Benning's) in 1870. He was probably one of the last of the old school of coursers, being 81 years of age, and through his long life has been universally respected and popular in the coursing field.

It is said that the kennels of Mr. G. M. Carnochan, of New York, contain at the present time over two hundred fox terriers.

The annual meeting of the Gore Kennel Club, of Hamilton, was held lately. The treasurer's report showed a balance on hand of \$132. The officers elected were:—Rev. T. Geoghegan, honorary president; W. J. Jackson, president; R. McLanahan, 1st vice-president; J. B. Bertram, 2nd vice-president; George H. Carley, secretary-treasurer; F. Small, Dr. Caldwell, A. G. Bain, R. Colvin, H. C. Davis, Joseph Kennedy, committee; F. G. Mills, representative to K. C. The Rev. Thos. Geoghegan donated a cup for the best Irish terrier novice, and Dr. Caldwell a cup for the best cocker spaniel novice.

The Irish terrier dog, Tim, who, at the Paddington Railway Station, London, plies the honorable calling of charity collector on behalf of the Widows' and Orphans' Fund of the Great Western Railway Company's employees, has just been the recipient of another important donation. The practical sympathy the dog's avocation called for, at the hands of Her

Majesty, has been quickly followed by a very handsome gift to the institution, sent by Mr. Astor, the American millionaire, who forwarded the company a cheque for two hundred pounds, to be placed in Tim's collecting box in commemoration of the coming of age of Mr. Astor's son.

A terrier bitch born at Ladysmith during the siege was brought over to England by a wounded soldier of the 2nd King's Royal Rifles. The puppy formerly belonged to a Ladysmith shopkeeper, who believes her parents were stolen through dire necessity during the last days of the siege. "Stolen through dire necessity" is very suggestive of more or less appetizing meat pie.

For the St. Hubert show at Brussels, Belgium, last month, 600 dogs competed under some 850 entries, and if it had not been that dogs under one year old were excluded, about 200 more animals would have been added. There were twelve English greyhounds, ten Borzois, twelve St. Bernards, 27 Great Danes, 12 bulldogs, 39 collies, 46 pointers, 24 English setters, 15 Gordons, 12 Irish setters, 27 wire-haired Griffons, 20 cockers, 52 Dachshunds, 32 fox terriers, 17 Schipperkes, 52 Griffons Bruxellois and other varieties.

The incident of the Paris International Exposition lent additional interest to the Paris dog show, held as usual in the Tuileries Gardens, under the auspices of the Society for the Amelioration of the Dog. The Prince de Wagram is the figure-head of the society, the committee including such notable French sportsmen as the Duc de Lespaille, Duc de Gramont, Duc de Lorge, the Marquis de l'Aigle and others. The President of the Republic paid the show a visit and conferred upon M. Betrome, the secretary of the society, the distinction of "Merite Agricole," in recognition of his services to the society and as a breeder of dogs. The dogs were kennelled in groups, a method of bestowing them which contrasts most favorably with the system in vogue in English-speaking countries of benching.

In its "Notes for Novices," the well-known English publication, *Our Dogs*, has the following:—"We have great faith in mixture composed of rhubarb and bromide of potassium for dogs which are suspected of having distemper. It is impossible to write out a definite prescription for all dogs, but any chemist of good standing would be able to make up a suitable mixture containing these two ingredients. The advantage of such a mixture is this—that the bromide of potassium is good for the nervous system and prevents anything in the nature of a fit, whilst the rhubarb acts as a gentle aperient, and thus keeps the system clean. When a dog shows signs of distemper, the best thing to do is to give straight off a

good dose of castor oil, then, after that has taken effect, a dose of the mixture mentioned, and subsequently a dose of this should be given at least once a day. This, of course, must be understood to be quite apart from the very necessary treatment for specific distemper accompanying the attack, such as lung trouble or diarrhoea, or skin complaint, each of which will have to be dealt with separately by some specific remedy. In regard to these various complaints it may be noted that sometimes all appear together, and then, obviously, it is impossible to be administering three or four kinds of medicine at once, so that

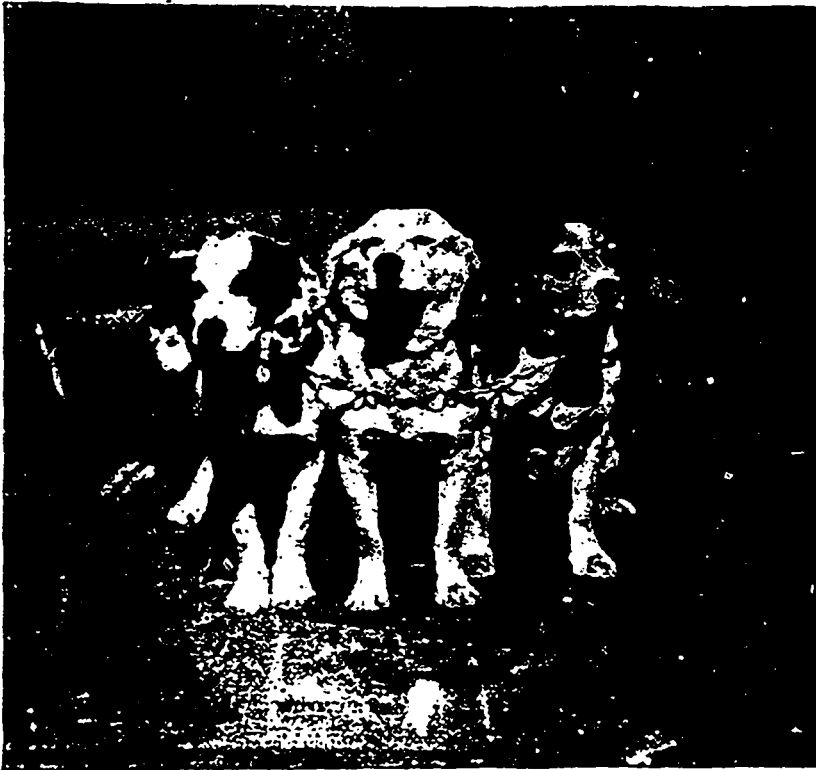
idea of giving mixtures which contain chalk, or pills of the same nature, because instead of clearing away the causes of dysentery they add to them very often, and set up greater irritation than before. If a dog has been thoroughly cleansed by castor oil, the best thing to stop the dysenteric symptoms is to give a very small dose of what is known as "compound powder of ipecacuanha." This is a powder containing a very small quantity of opium, and its effect is usually very quick in the direction desired. The dose must be a small one—say, half a grain for a pet dog and more in proportion for a larger

ands of fisher folk. They fish with lines from 150 to 200 fathoms long, two men to a boat, and each man using two hand lines. The usual bait is capelin. When fish are plentiful it takes a very short time to fill a boat with cod. A number of the fishermen have trained their dogs to assist them in catching fish.

The rapidity with which the fishermen haul up their long lines when they feel a bite, robs the fish almost entirely of life and breath by the time it reaches the surface of the sea. It comes to the top as completely exhausted as a salmon that has been played with by an angler until he can tail it with his hand and so avoid the necessity of gaffing it. It is one thing, however, to bring a heavy cod to the surface of the water and another to get it into the boat. Gaffs and landing nets are unknown to these toilers of the sea. If they can lift the fish into the boat by the line, all is well; but this is often where they fail. If the fish is large, and but lightly hooked, as is often the case, the hook breaks away from its mouth when the attempt is made to haul it from the water. The fish, still quite inanimate in manner and appearance, floats away from the boat on the surface of the waves. This is only for a moment, however. The fisher's trained dog, often without a signal from his master, leaps over the gunwale of the boat, plunges into the sea, swims after the floating fish and seizes it in his mouth. Returning consciousness, hastened by the new sensation of being taken entirely from the water and firmly gripped between the jaws of its captor, often produces lively struggles on the part of the fish, which add considerably to the difficulty the dog has in swimming back with his burden to the boat. The dog rarely releases his hold upon his wriggling captive until safe within the boat.

Sometimes these dogs have larger game than codfish to struggle with in the water. They are trained to plunge into the ice-cold water in the spring of the year and to act as retrievers for their masters when seal are shot from the shore on the surface of the sea.

The dogs employed by the fishermen of Newfoundland and Labrador are by no means the specimens of canine magnificence usually known as Newfoundland dogs. They more nearly resemble Eskimo dogs than anything else, and are often quite wolfish in both manner and appearance. It is even believed by many people that the blood of the wild brutes of the forest flows in their veins. At a post near Hamilton Inlet, not long ago, the door of a house in which an infant was



The Wharton Beagles—Florist, Leader and Lonsdale, the "Three Graces."

the best course to adopt is to treat for the most serious, making the best we can of so awkward a set of circumstances. A lotion can be used for skin complaint, externally, of course, at the same time mixture may be given internally for a cough and also for diarrhoea, but it is perhaps the best plan to leave the cough entirely alone, as that is not so serious as diarrhoea. Diarrhoea can then be treated best by doses of castor oil. It is very undesirable to stop diarrhoea suddenly in the case of distemper, because it is one of nature's methods of getting rid of the accumulation of the system. Perhaps the most satisfactory method is to give a small dose of castor oil occasionally containing one drop or so of laudanum (for a small dog) if there be any symptom of pain. We do not like the

dog up to 8 or 10 grains in the very heavy breeds. A dose of it can be given every four hours until the symptoms abate. Generally speaking, any case of diarrhoea in dogs, be it with distemper or otherwise, can be treated satisfactorily by giving castor oil first and this compound powder of ipecacuanha subsequently to stop the purging."

Labrador's Fish Catching Dogs.

Dogs trained to catch fish are among the features of everyday life on the barren shores of that distant part of Labrador which belongs to Newfoundland. The valuable cod fisheries along the 1100 miles of Labrador's coast yield about one-fifth of Newfoundland's total catch of cod, and furnish employment annually to thous-

sleeping in a cradle had been left open for a short time during the temporary absence of the other members of the family. When the mother re-entered the house she found only the bones of her child. The little one had been completely devoured by dogs.

The Labrador dogs are excessively quarrelsome, and, wolf-like, always attack the weaker. All seem anxious to take part in the fray, and scarcely a season passes without the settlers losing two or three dogs during the summer from wounds received in quarrels among themselves. Peace is instantly restored ever if twenty or more are engaged in the affray, by the sound, or even sight, of the dreaded Eskimo whip used by the Labradorians. These people have seldom succeeded in raising any other domesticated animal on the coast; cats, cows and pigs have all been destroyed by the dogs. If ever a dog is brought up in the house, his doom is sealed. At the first opportunity, the others will pounce upon him in the absence of his master and worry him to death. This is the invariable fate of any privileged dog on the coast that is permitted to enter his master's house and receive the caresses of the different members of the family. The preference excites the deepest jealousy in the breasts of the Labrador dogs, and they patiently wait for an occasion to avenge themselves. In the winter these animals will drag a commetique, or sleigh, fifty or sixty miles a day over the snow. They haul wood from the interior, carry supplies to the hunters in the forests far back from the rocky and desolate coasts; merrily draw their masters from house to house, and with their wonderful noses pick out the right path even in the most pitiless storm. If the traveller will only trust to the sagacity of an experienced leader, he may wrap himself up in his bear and sealskin robes, and, regardless of piercing winds and blinding snowdrifts, these sagacious and faithful animals will draw him securely to his own door or the nearest post. The commetique is about thirty inches broad and ten or twelve feet long. The runners are shod with whalebone, which, by friction over the snow, soon becomes beautifully polished and looks like ivory. The commetique is well floored with sealskins, over which bear or seal skins are nailed all round, with an opening for the traveller to introduce his body. The harness is made of seal skin; the foremost dog, called the guide, is placed about thirty feet in advance, the others are ranged in pairs behind the guide. Sometimes three, sometimes four

pairs of dogs are thus attached to one commetique, besides the guide.

The Eskimo dog of pure breed, with his strongly-built frame, long white fur, pointed ears and brushy tail, is capable of enduring hunger to a far greater extent than the mixed breed. But the latter beats him in long journeys, even when fed but once a day. An Eskimo dog will travel two days without food; one of the mixed breed must be fed at the close of the first day, or he is good for little the next. In winter their food often consists chiefly of dried capelin—the small, smelt-like fish used by the cod fishermen for bait. An expert driver can hit any part of the leading dog he chooses with the extremity of his formidable whip.



THE DOG.

Beneath this turf, that formerly he pressed
With agile feet, a Dog is laid to rest.
Him, as he sleeps, no well known sound
shall stir.
The rabbit's patter or the pheasant's
whirr;
The keeper's "Over!"—far, but well defined,
That speeds the startled partridge down
the wind;
The whistled warning, as the winged
ones rise
Large and more large upon our straining
eyes,
Till with a swoop, while every nerve is
tense,
The chattering covey hurtles o'er the
fence;
The double crack of every lifted gun;
The dinting thud of birds whose course
is done
These sounds, that to his listening ear
were dear,
He heeds no longer, for he cannot hear.
None sloucher, till the drive was done,
defied
Temptation, rooted to his master's side.
None swifter, when his master gave the
word,
Leapt forth to track the wounded run-
ning bird,
And bore it back—ah, many a time and
oft!—
His nose as faultless as his mouth was
soft.
How consciously, how proudly, uncon-
cerned
Straight to his master's side he then re-
turned,
Wagged a glad tail, and deemed himself
repaid,
As in that master's hand the bird he laid,
If, while a word of praise was duly said,
The hand should stroke his smooth and
honest head.
Through spring and summer, in the sport-
less days,

Cheerful he lived a life of simpler ways;
Chose, since official dogs at times unbend,
The household cat for confidante and
friend;
With chi'iren, friendly but untaught to
fawn,
Romped through the walks and rollicked
on the lawn;
Rejoiced, if one the frequent ball should
throw,
To fetch it, scampering gaily to and fro,
Content through every change of sportive
mood
If one dear voice, one only, called him
good.
Such was my Dog, who now without my
aid
Hunts through the shadowland, himself a
shade;
Or, couched intent before some ghostly
gate,
Waits for my step, as here he used to
wait. —Punch.

He Knew Something.

A story is told of a farmer's dog which was found guilty of obtaining goods under false pretences.

The dog was extremely fond of sausages, and had been taught by his owner to go after them for himself, carrying a written order in his mouth.

Day after day he appeared at the butcher's shop, bringing the order, and by-and-bye the butcher became careless about reading the paper.

Finally, when settlement day came, the farmer complained that he was charged with more sausages than he had ordered.

The butcher was surprised, and the next time the dog came in with a slip of paper between his teeth, he took the trouble to look at it.

The paper was blank, and further investigations showed that whenever the dog felt a craving for sausages he looked around for a piece of paper, and trotted off to the butcher's.

The farmer is something out of pocket, but makes up for it by boasting of his dog's intelligence.

"My man," said an old lady, a notorious busybody, to a pitman, whose dog was trotting on before him with lolling tongue, "your dog is not safe and ought not to be at large. His tongue hanging out so is a sure sign of rabies."

"Nae, ma'ain," replied the pitman; "it's tongue's owre big for its mouth, same as some old ladies' tongues."

Collies for Sale

Splendid litter of puppies for sale ex LOGAN'S HEATHER BLOSSOM, winner of everything in Canada this season, by LAUREL LADDIE, winner at Chicago and Montreal in dog classes, and five ex APPLE BLOSSOM by same sire; also ex CLOVER BLOSSOM (full sister to Heather Blossom) by KESGIR EMBRANT II. All beautiful sable and white markings. Will sell either young or old. Address

JOSEPH REID

Logan's Farm, St. Jean Baptiste P.O.
MONTREAL

THE GUN.

Conducted by "Bob White."

THE first annual Grand American Handicap Target Tournament, which was held during the week ending June 16th, at Interstate Park, Queen's, L.I., was somewhat of an experiment in the way of target shooting, in regard to the system adopted for handicapping the different shooters in the big event, the handicap being by distance 14 to 25 yards. In this event the contest was at 100 blue rocks, unknown angles, \$10 entrance, high guns, (not class shooting), \$200 being added to the purse. In addition to first money the Interstate Association presented the winner with a sterling silver trophy. Notwithstanding the fact that he shot from the 22-yard mark, Rolla O. Hakes, the well-known expert, landed the prize with a score of 91. He broke no less than 48 out of his first 50, demonstrating his right to the title of "Daddy of them all."

The next day John L. Brewer won \$100 on a bet by breaking 71 out of 100 from the 30-yard marking, using both barrels.

Jack Fanning has broken his own previous world's record by breaking 231 target's straight.

F. P. O'Leary, president of the Bison Gun Club, of Buffalo, N.Y., says the shoot at the Pan-American Exposition next year will be the biggest ever seen. There will be a handsome medal presented to every shooter who pulls a trigger there. It is proposed to have four 100 target events, with an added \$3,000 and \$4,000 guarantee with a distance handicap

There is a healthy agitation among American sportsmen for the abolition of spring shooting. The sooner our southern neighbors realize that they cannot kill the goose and get the golden egg as well, the better it will be in the interest of much-needed game protection.

Notwithstanding the universal demand for a later quail season by the Ontario sportsmen in the quail districts, the Ontario legislature, for some reason "unknown to the jury," steadily refuse to grant the relief asked for.

The management of the Winnipeg Industrial Exhibition Association intend holding their fourth annual trap-shooting tournament and Western Canada championships in connection with their exhibition. There will be a three-day shoot on July 25th, 26th and 27th, and some very at-

tractive features will be presented. On the first day a high grade Parker gun, value \$125, will be competed for by amateurs of Manitoba, N.W.T., and Ontario as far East as Port Arthur. On the second day, in addition to the regular target sweeps, there will be a club team shoot, the prize to the winning team being 4 gold medals, value \$40. The competition for the championships of Western Canada, open

the same man, will become his absolute property. The international team shoot will be shot for between teams of not less than 4 or more than 15 representing Canada and the United States. The prize for the winning team will be two beautiful silk flags presented by Thos. Lee, of Western Cigar Factory. High average prizes will be:—First, \$25; second, \$15; third, \$10. About \$200 is added by the Association in the various sweep events.

The manager, Mr. Heubach, writes us: "It's a long way to come, but we would like to see some of our Eastern brothers of the gun with us on this occasion. We have every hope of having a great big tournament as we have, I think, succeeded in arousing a very wide interest."

The enterprise of the Winnipeg Association of Winnipeg shooters in getting



Leaving Camp on Pelican Lake, Northern Ontario.

to residents between Port Arthur and Vancouver, will also take place this day.

The prize in this event is a handsome trophy presented by the Robin Hood Powder Co., of Swanton, Vermont, and is valued at \$200. In addition the Association will add a gold medal valued at \$25. On the third day the leading events will be the International Championship and International Team race. In connection with the international championship, Mr. John G. Morgan, manager of the New York Life Assurance Co., has presented the Association for annual competition, a handsome sterling silver trophy, valued at \$200. He has also intimated that each year a gold medal, valued at \$25, will accompany the trophy and will become the property of the winner. This competition is open to any amateur trap shot, and the trophy if won three times in succession by

up such a splendid programme especially for Western shooters, deserves success and we hope their greatest anticipations will be realized. Trap-shooting in Canada needs encouragement and the land of the Strathconas is leading the way.

Jack Brewer, of New York city, defeated Harry E. Buckwalter, at Royersford, Pa., May 26, in a live pigeon match at 50 birds for \$500 a side. Brewer won, killing 46 to Buckwalter's 43.

Walkerville (Ont.) Gun Club will hold their annual tournament on Labor Day, over a Magan trap.

C. S. Guthrie, an American trap shot, recently at the London, (Eng.), Gun Club grounds, won a £100 challenge cup and £45 in money by grassing nine birds

straight. This is considered a good performance there, the English birds being smaller and much faster than American birds, and most of them being drivers are far more difficult to kill.

Grounds Wanted for Trap and Target Shooting.

The Mascotte Gun Club are desirous of securing grounds for trap and target shooting; must be outside of city limits and within easy reach of electric cars. Any one having any grounds, please communicate with J. A. Renaud, fils, manager Mascotte Gun Club, Panet and Ontario Streets, Montreal.

Kingsville Tournament.

Kingsville Gun Club held their annual tournament at Kingsville, Ontario, on July 4th. Jack Parker, representing King's Smokeless, and P. C. Wood, Joe Marks, "Blue-rock" Cady and Mercier, Detroit; A. Reid, T. Reid, Clark, Walkerville; T. Wear, Windsor; F. H. Conover (Injun), representing Dupont Smokeless; J. Conover, A. Huffman, F. Wright, Leamington; Dr. Jenner, L. Stotts, Essex; A. & H. O'Neil, Paquette; and K. Ferris, Harrow, were among the visitors present.

The chief event of the tournament was the contest for possession of the King trophy, emblematic of the championship of Essex County and open to Essex County shooters only. The trophy is a handsome silver loving cup, presented by Dr. S. A. King to the Kingsville Club for annual competition, the winner being subject to challenge during the year. The contest is at 50 singles and 10 pairs thrown from a magnum. The cup was won last year by Dr. Perdue, Kingsville, who afterwards lost it to W. A. Smith, Kingsville, who held it until redeemed by the club. Mr. Smith was again successful in the present competition, winning it by 3 birds. The score for the cup was:—W. A. Smith, 61; A. Reid-Clark, Dr. McKenzie, T. Wear, each, 58; F. H. Conover, 56; J. T. Miner, 51; Dr. Jenner, 34.

The winners of high average in events 1, 2, 5, 6 and 8 were:—1st, J. Parker; 2nd, Cady; 3rd, Wood.

In the 3-man team race the scores were:—Smith, 13; A. Reid, 13; J. Conover, 12—35; Clark, 12; Wear, 12; F. H. Conover, 14—38; Parker, 14; Cady, 10; Wood, 10—34.

W. A. Smith won the prize offered for longest run in the continuous match, with a score of 12 on first entry.

All rocks were thrown from a magnum trap, which worked perfectly, and proved an improvement on the export traps hitherto used by the club.

Straight scores were made by Parker, Cady, F. H. Conover and Smith. Mr. Conover did extremely good work in the single target events, but fell down on doubles.

NOTES.

Some remarkable shots were made during the day. Wear made a clever carom off the top of the trap house and broke his target. Stotts broke his target and assassinated a swallow with the same charge.

Dr. McKenzie was travelling a 2-minute clip for the King trophy, but his gun kicked up with him in the double events, and spoiled his chances.

Jack Miner was another hot favorite for the championship, but his attempt to use a bulk powder in a high base shell was disastrous.

Jack Parker, with King's smokeless and Peters' shells, and "Injun" Conover, with Dupont powder, demonstrated clearly enough that they had the stuff to do the work if the gun was "pinted" right.



DISTANCE IN LANDSCAPE PHOTOGRAMS.

In securing pictorial effect in the rendering of distance in landscape photography, the various planes of which the view is composed, are, or ought to be, always more or less subdued and veiled by the haze which is present in the air, in order that a feeling of atmosphere may be produced. The fine detail is suppressed, and the sharpness, at least in the distance, is diffused in the endeavor to secure this effect. If on the other hand, the aim is to secure a photogram of general and topographical interest only, such as a surveyor would desire, the negative must be sharp and clear in every part, with as much detail in the extreme distance as in the immediate foreground, or in fact must not be divided into planes at all.

In the search for the pictorial, the best rendering of distance is obtained by photographing the scene as it exists, with the atmosphere and proper lighting actually present, for no matter how much one may distribute the focus, or suppress detail in order to secure the effective masses of light and shade only, nothing can be produced that is equal to the picture made under natural and appropriate conditions. For these effects, then, we must take our jaunts with the camera, not in the dazzling blaze of the afternoon, but rather when the soft shadows of twilight are creeping on, and the air is filled with a certain amount of feeling that is present at no other time of the day.

In focussing for a picture of this kind, it is evident that there will be certain points of interest that it is desirable to make prominent and emphasize, all other portions being made subordinate to them, and as a rule, it is these principal points only, that should be made sharp. In order to make the most of the depth of focus of the lens, the most distant object that is desired to be sharp, should first be got into focus without any diaphragm. Then put in the stop chosen and note the point, nearer than the one first taken, where absolute sharpness ceases. Take out the stop and focus this latter point; then re-insert the stop and the operation is finished.

Now, for instance, suppose we have a landscape, with a strong, well-marked foreground, and a background composed of pale blue hills, having very little local coloring, so that when photographed in the

ordinary way they appear to be part of the sky, even though it is just possible to make them out in the negative. It has been suggested that in such an event the best method of procedure is to make two identical negatives of the same subject, the one less exposed than the other, one for the distance and one for the foreground. To obtain a perfect print, there is to be a double printing, from both these negatives. This may be both theoretically and practically possible, but what will the resulting print look like? No matter how excellent the combination, it will be patchy and not so true as a print from a single negative, so that after all the question is how to produce one negative that will give the best results, with due regard to the proper gradation between background and foreground.

The beautiful blue of the hills is due to the advent of a sky, between the photographer and the distant object, or in other words, we are looking through a semi-transparent blue mist, and what we have to rid ourselves of is that blue, so that we can see the hills in truer local coloring. To a very large extent it is possible to do this. The light from the sun creates the blue veil. This veil is not true specular reflection from large particles, or, at all events, from particles of a size comparable with the water particles in a cloud, for then, instead of the blue veil, we should have a white mist such as we get in a fog. The particles in the air then, must, of necessity, be considerably smaller than these, and the sunlight that tails off them is scattered in all directions, the beam traversing them sustaining a considerable loss of violet and blue rays, the shorter the wave length of the ray the more loss there being from the original sunbeam. The loss from the original beam is to be found in the light which is scattered by these particles, and as a consequence of this, such light must partake of a bluish tint, containing a certain amount of white light due to some few larger particles, and also to the fact that all the rays are more or less scattered and reflected to the eyes of the observer. Take a dilute solution of mastic in alcohol, or even ordinary diluted negative varnish, and while stirring vigorously, drop it into a large quantity of water. We obtain an imitation sky. An electric light beam will be deprived of some of its blue rays in passing through the cell containing it, and while the whole of the cell will be illuminated with bluish white, it will is-

sue an extremely yellow color. To get rid of this illumination of the liquid, before allowing the beam to traverse it, we must make it pass through a Nicol prism and view the cell in a direction at right angles to the beam. By turning the prism on its axis, we obtain a position where the liquid's illumination in the cell vanishes almost entirely, so that the beam's track is seen almost alone. The light scattered is polarized in one direction, and the Nicol prism when turned to the proper angle, quenches this polarized light. In other directions, the light is more or less polarized, the least being in the direction of the beam itself.

Here, then, is an illustration of how this bluish tint may be removed from the atmosphere, viz.: by the use of a Nicol prism in the lens as Billden employs it, and as he described it some years ago. The only drawback to the prism is that it confines the view to certain limits, for it has a width of one to a length of three, so that consequently the view is confined to a narrow angle.

In the winter time, with isocromatic plates and exposures to suit the soft and weakened light there should be no difficulty in producing almost any desired effect in this direction. At this time of the year, however, the light is very deceptive, and of much less actinic value than the dazzling glare of the sun on the snow would lead one to imagine, so that it is almost essential that a large stop be employed, and with an isocromatic plate, an exposure of from one second to several minutes be given, according as the judgment may direct.

Now as to the other side of this subject, there must necessarily be many occasions when the true delineation of every object, both near and distant, is required, and the operator is looking for a negative possessing the greatest amount of detail and sharpness, not only in the foreground, but also in the middle and extreme distance. Subjects such as bird's-eye-views of cities and towns viewed from above require careful treatment in exposure and development. To render clear and distinct, both the detail in the foreground and distance, will call forth some skillful work, and in the case of the tyro will be the cause of many failures. In this class of work it is really astonishing how short the exposure may be and no doubt many err in this direction in spite of all that may be said to the contrary. To obtain the best results, slow isocromatic plates should be used, or possibly in landscapes with much foliage or trees in the foreground a plate of medium speed may be better. Having carefully focussed the view, insert a stop on no account larger than F 32, and make a quick shutting exposure, or if it is necessary to use a cap, an exposure of about one second with the lens stopped down to F 41 or F 64 ought to be ample, taking it, of course, for granted that no view of this

nature is to be attempted unless the sun be either at the back or slightly to one side of the operator.

Development ought to be carried on with a developer, admitting of unlimited control and all unknown or one solution developers must be carefully avoided. Suppose you start development with a pyro-soda solution very weak, and restrained with a solution of bromide potassium. The distance soon appears and may be painted over with ten per cent. solution of potassium bromide. The developer is then to be kept in the foreground by tilting the dish, with occasional flows over the sky to prevent the formation of a definite line.

A negative produced for purely pictorial purposes would have to be thin, with no solid high lights, and with that slight veiling which lends such an indescribable charm to the finished picture. There must be no clear glass in the shadows, or no unprintable density for the high lights. A negative belonging to the topographical class would naturally be just the opposite. It is necessarily crisp, and with unlimited detail in both foreground and distance, of fair density in every part, and a quick printer. Anyone knowing the requisites of a suitable negative, requires only experience and practice to produce at will, one of any class he may desire.



Sand Beach on Vermilion Lake, Northern Ontario.

The foreground ought now to be showing up, and if so, development will probably be automatic and require but little alteration, other than perhaps to give the requisite density by small additions of pyro solution. Another method would be to immerse the plate in an extremely diluted developer, treating the negative as previously mentioned, and when a mere ghost of an image has been secured over the whole plate, change the developer for one containing a normal proportion of pyro, with a small quantity of accelerator, and so obtain uniform density and no fog.

It is very necessary to avoid over-exposure, as even if a strongly restrained developer be employed to counteract it, there will necessarily be considerable fog, resulting in a very indistinct distance, and an exceedingly slow printing negative. Then again as in everything else, it is important that the developer be used rationally, and with a view to certain definite effects.

Distance properly rendered lends to a photograph the effect of atmosphere, and on this quality the words of Mr. A. H. Wall, seem well worth quoting. He says: "Atmosphere is the great harmonizing element of a picture; it is the eye's music, giving order and proportion. It supplies the prevailing tone, high or low, and with it the prevailing sentiment or feeling. A rich effect or a simple one may be made to prevail by its judicious introduction, selection or treatment. Without atmospheric peculiarities or characteristics a landscape picture seems flat, monotonous and uninteresting. The photographer who goes to the study of nature as an artist or a poet does, reverently, with trained perceptive organs, will find the pleasure and delight of his work largely increased, even if he does not realize what Shakespeare calls "the utmost reachings of his soul." Strum wrote well and truly when he said, "the advantages of reason are never more felt than when our faculties are employed in meditating upon the perfection of God displayed in His works."

Correspondence.

Correspondence should be addressed to Box 651, Sarnia.

W.G.R.—A toning solution for solid prints is:

- Water 12 oz.
- Borax 75 grs.
- Acetate soda 75 grs.

GOLD SOLUTION.

- Chloride of gold and sodium 15 grs.
 - Distilled water 4 ozs.
- Fix and wash thoroughly after toning.

Acid.—Most acids change the color of blue letmus paper to red. All acids should be kept in bottles having ground glass stoppers, except hydrofluoric acid, which is destructive to glass and should be kept in lead bottles.

Lens.—Achromatic means free from color.

Jarvis.—Water evaporated by boiling and again condensed and collected by means of a still is said to be distilled.

Under-Exposed.—If you had been a hundred feet from the building you could have taken it with a 1-20 sec. exposure, but when you are only twenty feet from it, the exposure must, of necessity, be considerably longer.

Which weight?—Chemicals are usually sold by avoirdupois weight. They are usually mixed by apothecaries weight.

St. John Abbott—To test your shutter's speed you had better get a Pickering Speed Tester. The price is only fifty cents.

His Garden.

"You are my garden," he declared,

"Your cheeks are roses red;
 Your lips are honeysuckle, and
 Each eye a pansy bed.
 Your throat's a lily and your ears
 Are dainty plinks and rare;
 Your snowy brow is fringed about
 With wreaths of maiden hair."

The gentle maiden looked away
 And sighed a little sigh,
 And then she said: "You've skipped my
 nose,

O prythee tell me why?
 My cheeks, my ears, my eyes, my lips,
 My throat, my brow, my hair
 Are on your list—what ails my nose
 That it should not be there?"

"Your lips are honeysuckle, and
 Your ears are plinks," he said;
 "Rebellious sprays of maidenhair
 Are clustered 'round your head;
 Each of your dimpled cheeks is like
 A fragrant, blushing rose—
 As for your nose, fair maiden, it's
 The loveliest thing that blows!"

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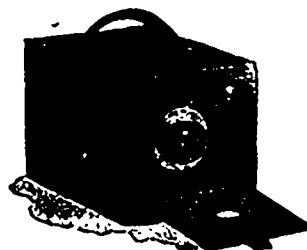
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