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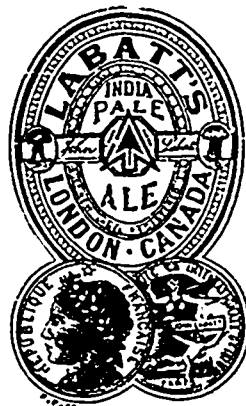
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OF
CANADA.

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MONTREAL, OCTOBER, 1900.

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A needed bit of legislation in Quebec Province is the passage of an act providing for a bounty on wolf scalps. The figure should not be too low or the incentive to destroy these deer killing pests would be insufficient for the purpose. Probably ten dollars per head would be a fair price, and we believe Ontario offers that figure and has greatly decreased the number of wolves, and correspondingly increased the deer. An authority estimates that on an average each wolf kills one deer every ten days. Assuming for argument's sake that the time is doubled and there are but two hundred wolves in the province, the result would be $200 \times 10 = 3,600$ deer, an immense annual sacrifice which should be prevented. A large increase in the Province's assets in deer means the undoubted increase in the number of hunters from the cities and the United States, who would disburse considerable money in the poorer sections of the province. If Maine had a fair stock of wolves the influx of hunters and dollars from other states would soon stop by reason of exhaustion of deer supply. Maine, with only 22,800 square miles of wild land (less than the county of Pontiac in Quebec), was visited in 1899 by 9,300 non-resident hunters, besides 6,000 resi-

dents employing guides, all of whom killed 7,579 deer. The non-residents disbursed probably \$2,000,000 in the State. These figures are suggestive.



What may prove a menace to our forests, and therefore to our game, in the not too distant future, is mentioned in a recent number of "The Forester" in an article by N. S. Shaler, of Harvard University. The effects of a visitation by the gypsy moth, wherever its hordes of ravenous caterpillars have appeared in Massachusetts, has been most marked and disastrous, and, unfortunately, the ravages are not confined to any particular kind of green, for when pressed for food it readily resorts to conifers and "sweeps a wood aseffectively as a fire." Whether the intense winter cold of the climate of much of Canada will prevent this pest gaining a serious foothold, or, whether some enemy of the species may develop so as to check it effectually, remains to be seen. We shall watch with great interest developments to the South which have now been unfolding themselves, we believe, for the past twenty years. We commend the subject to the earnest attention of the Canadian Forestry Association.



How intimately associated with the protection of game is the preservation of the forests from every known kind of widespread destruction. In parts of some districts we visited last month, where cultivation never should have been attempted owing to the nature of the soil, a few years since there was considerable game and thick forest—today the trees are not seen and the spaces are waste. That land was intended by nature to grow forest and shelter game. Let us hope one of the aims of the Canadian Forestry Association, viz.: to prevent such attempts to destroy forest

unwisely, will soon have governmental approval and that the danger of further foolish tree cutting will be prevented.



An excellent opportunity for practice in estimating distances in rifle shooting is afforded by the Great Northern diver or loon which is to be found on most of our northern lakes. Not only is the target not large, but at constantly varying distances, and each shot can be seen striking the water, therefore enabling the marksman at times to correct his aim. The difficulty of killing a loon is sufficient to cause the average shot a good amount of practice, and there is practically no danger of your target flying away or walking into bushes, for the loon walks with difficulty and gets under weigh for flight only seldom. A loon well mounted is a specimen of taxidermy worth preserving, hence, if the marksman makes a bull's-eye and secures his trophy not too seriously mangled, it is worth keeping. As to the humane side of such practice, the loon kills his fish victims daily and lives thereby, and if the sport of loon shooting be objectionable, we fear that something equally evil will be found in all shooting and fishing.



The economical side of camping appears to be touched upon seldom. Irrespective of its direct returns in improved health and necessarily less call for doctor and drugs, of itself an economy, the cost for food is very small and transportation and other charges are no greater than on other outings. Fifty cents per capita per diem enables the camper to have the necessaries and a few of the luxuries of the table, and any advance over that sum means an expenditure for unnecessary luxuries which the camper is better without. It may be said that generally speaking it is cheaper to camp than stay at home.

Among the Northern Lakes

By E. T. D. Chambers.

No map has ever been made showing the number and location of the myriads of lakes, large and small, that dot the vast expanse of unexplored territory in the far north of the Province of Quebec. There is no exaggeration whatever in the statement that in every important section of this great northern country there are thousands of well-stocked trout lakes whose waters have never been whipped by the angler's flies, and upon which the eye of the white man has never rested. Through one such expanse of primeval sporting territory it was my good luck to paddle and portage and fish a few years ago, accompanied by Lt.-Col. Andrew C. Haggard, D.S.O., the author of a charming paper that ran through two recent numbers of Rod and Gun.

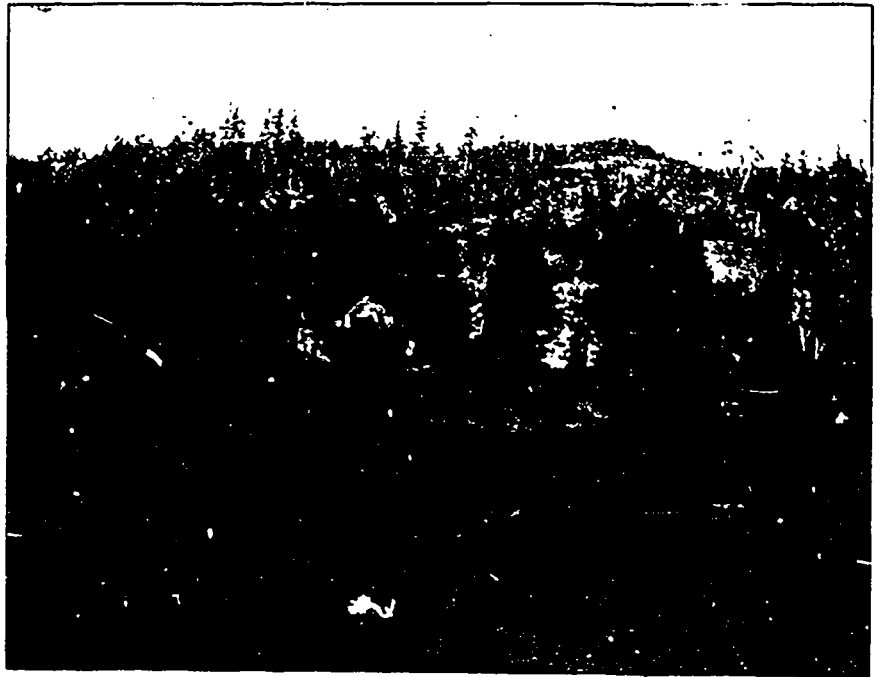
The pilot of the party was John Minnigouche, a full-blooded Montagnais Indian, who was to escort us through a part of the country which he hunts in winter for the Hudson Bay Company, and which was at that time known to very few of the other guides. Each of us had a sixteen f. et birch bark canoe, and into them we packed our camp outfit and fishing tackle, our week's supply of provisions and small supply of personal comforts, as well as our guides and ourselves. A steamer conveyed us across Lake St. John to the mouth of the Little Peribonca which joins the larger stream of the same name a couple of miles from its mouth. Joseph Simeon, another full-blooded Montagnais, who was the chef de cuisine and practical head of the party of guides which accompanied us in 1892 up the Grand Peribonca river to Lac Tschotagama, had charge of the colonel's canoe, his mate in the bow being Joseph Nepton. Mine, with its contents, was confided to John Minnigouche and William Connolly. How William's ancestors came by their patronymic, neither he nor I can explain. The color of his skin, which is several degrees lighter than that of the other three Indians, may prove an index. Neither he nor they could understand or speak a word of English. All but Minnigouche could converse in French, and when alone with this latter in camp, I had the opportunity of bringing into requisition my limited knowledge of Montagnais, and in canoe of listening to the soft and musical accents of this Indian dialect, in the conversation between Connolly and Minnigouche. The hunting grounds of the last mentioned extend over more than 400 square miles.

Though but one of the Grand Peribonca's many tributaries, the Little Peribonca

is often more than 600 feet in width, and seldom less than 200, in the course of the 35 miles of the stream ascended by us on this occasion. There is so much rapid water in a large part of its course that a good part of three days was occupied in the ascent. We fished at the foot of most of its upper chutes, but took no trout larger than a pound, though several of over half that weight. It cannot truthfully be said that they rose freely, for we were there in the latter part of July, when the heat was at its greatest, and the large fish, naturally, in the seclusion of the deepest and coolest holes. But the fish that we took were stubborn fighters when hooked, and many of them made quite a spirited resistance. Their coloring, though beauti-

ful, was discolored with dirty clay, and at the foot of the Chute Blanche and other inviting looking pools, the fish were unable to discern our flies. Here we expected to take ouananiche as well as trout, but were disappointed by both, and higher up the stream, the ouananiche do not ascend.

Chub, locally called outouche, (pronounced wee-toosh), are plentiful in nearly all the waters through which we passed on this trip, and were a positive source of annoyance. Far from being what Izaak Walton calls their English congener—"the fearfullest of fishes,"—these Little Peribonca chub were absolutely devoid of fear, and constantly rising to our trout flies. Pike are abundant in the lower stretches of



Opemikan, Lake Temiskaming

ful as that of fontinalis always is, was not nearly so brilliant as that of the rare specimens of the same fish that we took a few days later out of the crystal waters of Lac des Aigles. In favorable seasons the fishing in the Little Peribonca must be exceedingly good. The small trout in this river seemed perfectly unsophisticated, and rose greedily to every kind of feathered lure. A piece of colored flannel or rag would doubtless have served the purpose equally well, so far as they were concerned. The larger ones that rose to our flies, preferred the Grizzly King to any other, though the Parmachenee Belle was also a good killer. We were robbed of all our anticipated sport in the best pools on the lower part of the river, for there had been a freshet on the previous day and a landslide several miles up the stream, so that

the Little Peribonca, but we had not time so far to waste time upon those predatory monsters, and so passed them by.

The guides had a great deal of difficult poling up the rapids in the upper part of the river, and from the small lake which was reached at the 35th mile, we crossed a height of land to Lake Epiphany. It was a hard day's work, and involved four portages or carries. Two of these were very difficult, and two or three miles long, respectively, over high and thickly wooded hills, upon which we found a provoking amount of fallen timber. The narrow portage paths were almost obliterated by masses of tangled bushes and fallen trees, around which were dangerous pitfalls, difficult indeed to avoid on account of the rankness of the foliage. It was really wonderful how the guides picked their way

through these entangled forests, and what loads they carried at the same time.

Lake Epiphani is a gem set within the hills, and one of the most beautiful of the glittering array of crystal lakes in the country traversed by us. It is about three miles long and one and a half wide, and at night the surface of the water was literally boiling with rising fish. We frequently took them two and three at a time, and could easily have taken a hundred each during the evening had we needed them. Our canoes seemed to have no terrors for them and they peered curiously at us close to the birch-bark, often leaping clear of the water to seize our flies. Notwithstanding the lateness of the season the May-fly was still upon the water.

lucins that are too often called pickerel in the United States.

In the lake's outlet the fishing was exceedingly good notwithstanding the extreme heat. Our return from the lake to civilization was by 95 miles of water and portage routes. Twenty-two miles below Lac des Aigles, the river of the same name empties into the Aleck, fifteen miles above its junction with the Peribonca. From the mouth of the Aleck the canoe journey down the Peribonca to Lake St. John is twenty-nine miles.

The Aleck is a charming stream and affords good fishing for ouanache as well as for trout. It contains a number of magnificent waterfalls.

The Peribonca is nearly two miles wide

maple syrup; upon the icy cold water of innumerable bubbling springs, and upon the early blueberries that were ripening everywhere in great abundance.

For the fly fisherman and tourist who is not averse to roughing it in the bush, and would like to whip practically virgin waters, swarming with uneducated fish that for the most part have never yet had the opportunity of inspecting artificial lures, I know of no more attractive tour than that up the Little Peribonca to Lake Epiphani, thence to Lac des Aigles, and back again to Lake St. John by way of the des Aigles, Aleck, and Peribonca rivers.

Quebec, Sept. 1st, 1900.

NOTES ON THE CARIBOU

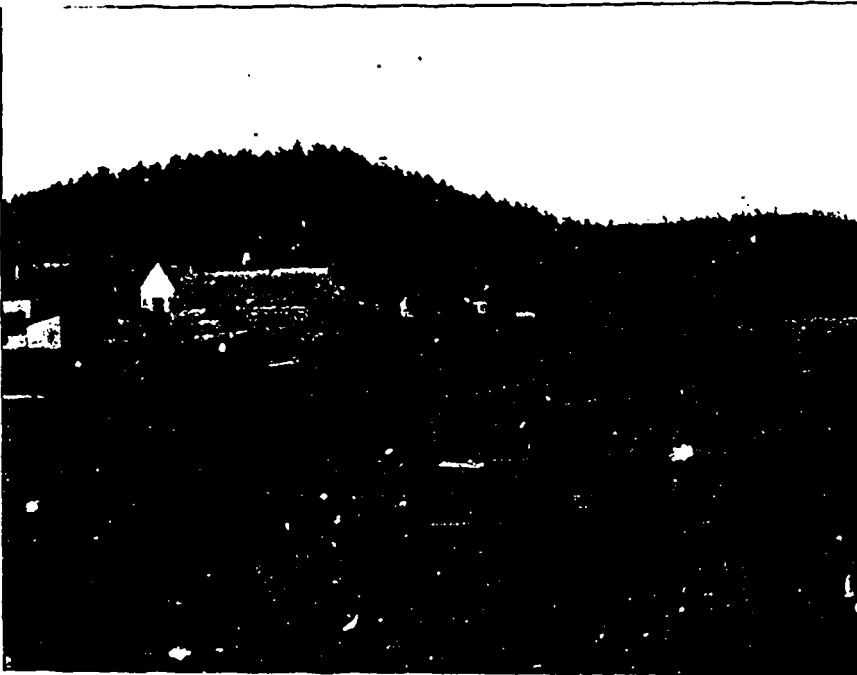
By Chas. A. Bramble.

Comparatively few men start out on a hunting trip with the deliberate intention of bagging caribou, in fact with the exception of Newfoundland, Cape Breton and Gaspé, one may say that expeditions for the sole hunting of caribou are never undertaken. There is a very good reason for this. The caribou is a wandering animal, and in the vast forests of the eastern and north-western parts of the Dominion you may hardly count upon finding these deer in any given locality.

In the thick woods, the caribou feeds principally upon the long, gray moss, that hangs from the lower branches of the spruce trees; as it can find this food anywhere there is no particular reason why the caribou should limit itself to one circumscribed area. Unlike the moose they never yard. The foot of the caribou serves as a very admirable snowshoe, and an animal weighing 350 pounds will skate along over a crust that would not carry a terrier.

As may be readily imagined, this ceaseless activity on the part of the caribou renders a successful pursuit difficult; and as none except the Mic-mac of Newfoundland understands "tolling" or calling, it has come to pass that sportsmen generally conclude that caribou hunting is too much like work, and that the game is not worth the candle.

But they are wrong, there is one key to the successful hunting of the caribou, though few have found it. Exploiting during a few days at the latter end of March, when the caribou remain almost exclusively upon the ice of some lake, owing to the depth and softness of the snow in the woods, and when they may be killed by any one sufficiently depraved to go after them, the animals are only to be successfully hunted during a few days in the late fall and early winter.



H. B. C. Post, Fort Temiskaming, on Lake Temiskaming.

The crossing of another series of small lakes and the intervening portages, some half dozen of each, took up three-quarters of the next day, and we reached beautiful Lac des Aigles late in the afternoon. It is much larger than Lake Epiphani, and even more picturesque. Its trout are amongst the reddest and most brilliant that I have seen. We took a number of from one pound to two pounds each, and no doubt exists in my mind that in June or September this lake would furnish some of the grandest trout fishing to be found anywhere. But our flies were also constantly seized by the large chub and pickerel that share with the big trout the tenacity of the lake's waters. The pickerel were the genuine fish of that name, often called dore by French-Canadians, and not the common pike or esox

where we were paddled out upon it from the mouth of the Aleck. For the remaining 29 miles of its course it averages over a mile in width.

During the ten days of our trip we journeyed over 250 miles, nearly fifty of which were travelled on foot over very tiresome portages. We shot innumerable rapids, feasted our eyes upon luxuriant forests and more than a score of magnificent waterfalls; our ears upon the music of the purling brooks, the singing of innumerable song birds, the sound of the leaping fish at play and the roar of the cascades; our lungs upon the pine-scented and balsam-laden air of the woods, and our appetites upon Simcon's menu of trout broiled, trout boiled, trout planked and trout fried; upon flapjacks or pancakes of our chef's own handiwork, served up with

If you would make sure of your caribou, be well advised, and do not go off for the hunt excepting about the time of the first snow. In September and October you may or you may not find caribou where you expect them, but should you be on a good range at the time of the first snow flurries, you ought to run across fresh tracks. Having done so, the rest is easy. In some respects the caribou is a very shrewd animal; in others a perfect fool. It does not trust to its eyesight, and will almost blunder against a man should there be no trace of his presence in the air, but its sense of smell is very acute, and upon that sense it relies mainly for its protection. Caribou usually travel through the woods at an average pace of four miles an hour, and hardwood ridges are preferred to the heavier spruce lands and mixed growths. All the hunter has to do upon finding fresh tracks, is to follow them at as good a pace as he can command, keeping a very sharp look-out ahead. Of course every precaution must be taken to prevent the animals getting wind of the hunter, but as a general thing they always travel up wind, knowing that against all ordinary dangers this gives them the greatest measure of protection, therefore the taint of the hunter's presence will hardly reach the caribou, at least while they are travelling.

Should the game be viewed while passing along an open hardwood ridge, the hunter must stand as still as a statue, and not move until the game is out of sight. Following slowly, the animals will at length disappear into some belt of mixed growth. This is the hunter's opportunity. He should force the pace, keeping his rifle ready for a snap shot, and on once more coming up with the animals he ought to be within easy range of at least one of them.

On the barrens the caribou feed during the morning and afternoon, and probably at night, but during the middle of the day are fond of basking in the sunshine, and a herd discovered under these conditions, is easily approached. The stalker must, of course, keep down wind, and avail himself of all the natural cover he can find, as he crawls towards the game. Should he succeed in getting within 150 yards, he makes everything ready for a shot, and then gives a shrill whistle, provided none of the animals be standing. This will bring them to their feet, and before they have had a chance to recover from their astonishment the rifle should have laid low the finest head.

Caribou are sometimes very inquisitive animals. They are very fond of roaming through the works and among the

fresh cuttings of the lumbermen, browsing on the gray moss which hangs in long festoons from the limbs of the prone spruce tops. It is no unusual thing for the men on going to work, to find fresh tracks made during the night, in and out and around about the boughs and tops of the trees they had felled on the previous day. This shows that under certain conditions caribou are not in the least alarmed at the scent of men, being evidently able to distinguish between possible danger and certain security.

On one occasion, to the writer's knowledge, a caribou in the month of September attacked fiercely a gray horse, which was harnessed and passing along a lumber road, and had to be driven off by a light charge from a shotgun. On another occasion seven men were walking in Indian file through the woods, when a young caribou cow came galloping towards them, showing the liveliest curiosity. There was no breeze, and she was not more than fifteen yards from the procession when the leader put a bullet through her heart.

The caribou is a far more hardy animal than the moose, although the latter is by no means a weakling. Far north of the limit of the moose, the caribou flourishes like a young bay tree. In the extreme north, the variety met with is that known as the barren ground caribou. It is absolutely identical with the reindeer of Europe and Asia. It is smaller than the woodland caribou, but its horns are very much larger in proportion, and are valued for their numerous branches and great spread. The beam of the antler is, however, slighter than that of the woodland variety. These animals are only found in the northern parts of Labrador, and on the barrens reaching from the western shores of Hudson Bay to the Behring Sea. They migrate from north to south in the autumn, and pass the winter just within the fringe of the forest, where the small, scrub spruce, struggles with the Arctic moss and the north wind, for an existence.

Contrary to the usual rule with the deer tribe, the female of the caribou very frequently carries antlers; it is said that in the barren ground variety this is the rule and not the exception. With the woodland animal the reverse is true. The antlers of the female are small, insignificant affairs, with but a couple of spikes on each horn.

The caribou carry their horns later than most other deer. Instead of losing them early in the winter, they retain them in many cases until March, and the females, I fancy, do not lose theirs un-

til after the birth of their calves, but of this I am not sure.

Although moose, elk, and deer have been exterminated in many districts, and are likely to be further exterminated in others, there is little fear of the caribou coming, as a race, to an untimely ending. If mankind becomes too numerous the caribou simply moves off, and a couple of hundred miles being nothing to such a traveller, finds the protection it desires somewhere to the north or northwest. Rivers and lakes do not stop it, for as a swimmer, few animals can compare with the caribou.

The Fisherman's Story.

He sat at the door of his shanty,
And gave his whiskers a wipe;
And scanned the sea for a moment,
And then began to pipe:

"'Twas a cold, raw day last winter,
And the wind, with an angry roar,
Ripped everything into ribbons,
And pounded the dreary shore.

"And we was out in a dory
Achin' with hunger and cold,
Till we all seemed shrunk to nothin',
' And, gosh, how the mad sea rolled!

"We couldn't land in the billers,
Without bein' battered to death;
We gasped like wolves with hunger,
As the nor' wind froze our breath.

"Then suddenly out on the water
There bobbed up somethin' black,
While all on us looked in wonder—
For it warn't no big fish back.

"Because it frizzled and s'zzed,
And smoked right out of the wave;
We rowed for it, all on us frightened—
Our hunger made us brave.

"We soon hauled it into the dory,
And what do you think, by Jove?
It warn't no big sea monster,
But a fine little kitchen stove.

"The pipe was a-stickin' upward,
And the lids was on in line;
And we warmed ourselves around it,
For the fire was goin' fine.

"Then stillness fell on the waters,
And the big storm all went down;
And we ate from the pan in the oven,
The turkey nice and brown."

And then he said in conclusion,
With an awe-inspired "alas!"
"It simply beats all thunder
Some things what comes to pass."

Overcome by his great emotion,
He gave his whiskers a wipe,
And lapsed into awful silence
While he pulled away on his pipe.
—New York Sun.

The estimable Commissioner of Lands and Fisheries of Quebec, Hon. S. N. Parent, who is also President of the North American Fish and Game Protective Association, has become also the Premier of this Province, and Rod and Gun congratulates him on the added honors.



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.

Autumn.

There is a beautiful spirit breathing now
Its mellow richness on the clustered trees,
And, from a beaker full of richest dyes,
Pecuring new glory on the autumn woods,
And dipping in warm light the pillar'd
clouds.

Morn on the mountain, like a summer
bird,

Lifts up her purple wing, and in the vales
The gentle wind, a sweet and passionate
wooer,

Kisses the blushing leaf, and stirs up life
Within the solemn woods of ash deep-
crimsoned,

And silver beech, and maple yellow-leaved.
Where Autumn, like a faint old man, sits
down

By the wayside: weary.

—Longfellow.

FORESTRY IN NOVA SCOTIA.

THAT an interest in forestry is being aroused in Nova Scotia is evidenced by the remarks of His Honor Lieutenant-Governor Jones on the opening of the Halifax Exhibition on the 12th of September. The Lieutenant-Governor, after emphasizing the necessity of an intelligent study of the resources of the Province, its agriculture, its fisheries, etc., so as to preserve and increase their productiveness, spoke as follows:

"The same principle applies to our forest. At one time the farmer's first object was to clear his land, cut down and burn the trees to make pasturage, if nothing else.

"Of course in a new country much land had to be cleared in this way, and if one would cast his eye over the Province from one end to the other he would see vast acreages cleared which are now, beyond mere pasturage, of very little value. There is an old saying that "there is no use crying over spilt milk," but this at least we can do—set ourselves to work by seeing in what way the mistakes of the past may be remedied.

At the present day the demand for our lumber, and particularly our spruce forests, is daily assuming more importance, and if we are wise people we will set ourselves to work at once and see in what manner as owners of the soil we can realize further advantage and profit for our inheritances out of this changed condition of affairs."

After a kind reference to the formation of the Canadian Forestry Association and the report of its first annual meeting, His Honor continued:

"I hope the time is not far distant when our people may become interested in this subject also. Perhaps there are greater possibilities in this regard than in almost any other branch of public industry.

"We know in England that the value of the estates is in most cases largely dependent upon the value of the timber, and with us the time is not far distant when the value of much of our lands will be measured in this same way.

"I hope therefore than intelligent discussion may soon be brought about in Nova Scotia, and that our people may find it to their interest to undertake here what is being undertaken in other parts of the world, by reproducing the forests which have been so lavishly and almost unnecessarily destroyed.

"Anything out of the usual course that can be successfully undertaken is an object to be striven for, and while there are many things that we have had before us which can no doubt be much improved, it is well, I think, not to omit these subjects which up to the present have not been so prominently considered. I would therefore commend these points to your best attention, and I hope that before very long I may see sufficient interest taken, particularly in the replanting of our forests, which holds out prospects of such great benefit to the future generations of our people."

The Presbyterian Witness, of Halifax, and the Maritime Merchant, of Halifax and St. John, have also been giving the subject of forestry some attention.

The Witness lays down the proposition that the renewal of the forests is a duty we owe to those who will come after us, for a bare-faced country—a country with-

out trees—is doomed to blight, barrenness and total ruin. The Witness is, however, perhaps a little strong in stigmatising pulp as a veritable enemy to the forests, as the fault is rather in the ignorance or selfishness or carelessness, which neither knows nor cares to look beyond the moment. Pulp is no more an enemy than is any other method of making use of our forest resources, and what is required is an intelligent study of the growth of trees and the methods of forest management, and the practical application of the conclusions arrived at.

The Merchant asserts that when the returns are published the shipment of lumber this year from New Brunswick and Nova Scotia will be shown to have been the largest in their history, and it makes the following statement in regard to the conditions in Nova Scotia:

"Those engaged in the lumber industry in Nova Scotia feel that they are taking more from our forest than should be taken if we are to preserve our lumber industry for the future. The portable mill, which is taken from point to point throughout the country sawing timber which a few years ago would have been allowed to stand for further growth, is one of the chief dangers which threaten this industry. As an indication of the growing demand for lumber, we have the fact that the material which a few years ago would have been permitted to go to waste now brings from \$9 to \$10 per thousand. As the forests become cleared and the supply of lumber becomes lessened it is difficult to say how far this increase in the price may continue. The probability is that a time will come when lumber will bring almost any price that may be asked for it. It will sell at figures we do not dream of to-day. With a reasonable amount of protection our forests could be made to last indefinitely. If some action is not taken now, a time will almost surely come when it will be absolutely necessary, but to make the move now will accomplish a great deal that it will be too late to accomplish after the greater part of our timber has been destroyed."

Forest Fires.

Every Canadian knows the meaning of a forest fire, having had the lesson impressed in some cases by painful personal experience, and in others, fortunately for themselves, only by reading of the terrible destruction of property and life which has so frequently resulted from such fires. Every part of the Dominion, from the Atlantic to the Pacific, has suffered from this cause. The story of the great New Brunswick fire of 1825 is historic, and has thrilled the hearts of all who have heard it, while in the Ottawa Valley to-day the year of the fires (1870) is still one from which to date as a point

marked out in lurid distinctness in the history of that district.

Anyone who has travelled through Northern Ontario, or, indeed, through any of our timber districts, will have had forced upon his attention the immense loss which Canada has sustained by fire. The timber districts as they now stand, as well as the evidence of all experienced observers, demonstrate that no other agent of destruction has at all equaled fire in the breadth of its sweep or the effectiveness of its destructive power. Dr. Robert Bell, of the Geological Survey, states that fully one-third of the area which was covered by the northern forests of the Dominion has been burned over. Mr. E. F. Stephenson, Inspector of Crown Timber Agencies for the North-West, states that within the last five years the timber resources of the Province of Manitoba have diminished one-half, whereas with adequate protection from fire the natural increment would have been far more than sufficient to have supplied all demands. The reports of the officers having charge of the irrigation works in Alberta all take up the same lament, that the fires have been allowed to destroy the timber on the foothills to so great an extent as to interfere with the water supply so important for the development of the semi-arid district. The reports of the surveyors of the Department of the Interior in British Columbia a few years ago all referred to the difficulty of carrying on their work on account of the smoke from forest fires. Mr. R. Chalmers, of the Geological Survey, in his report of 1895, states that the destruction going on in the Maritime Provinces every year from forest fires is vast in proportion and far-reaching in its effects, and it seems not at all unlikely that the existing condition of things will continue until the forests are wholly destroyed.

The early part of the present summer was very dry and favorable to the starting of forest fires, and as a consequence conflagrations at different points made themselves of sufficient importance to be taken notice of by the press. A large quantity of timber was destroyed in the south-eastern part of Manitoba; the Rainy River District suffered severely from this scourge; while in New Brunswick the fires were so severe that not only were the forests threatened, but even some of the towns were placed in great jeopardy. The danger is, therefore, with us still to be faced and fought.

There is some dispute as to the frequency of fires resulting from natural causes, but there is no question that the fires have increased in number with the advent of civilization. Camping and hunting parties carelessly handling fire, settlers clearing their land, prospectors desiring to get rid of forest obstruction, railway construction gangs, unprotected

locomotives, and even sometimes the lumbermen themselves have been responsible for the small beginning which has kindled a great fire.

The Governments of the various Provinces and of the Dominion have set themselves to the task of discovering some effective preventive measures.

The Ontario Fire Act gives authority to the Lieutenant-Governor-in-Council to set apart fire districts, and within these districts no person is allowed to start a fire between the 1st April and the 1st November without taking every reasonable precaution for preventing its spread. A place must be selected where there is the smallest quantity of vegetable matter, a space of ten feet must be carefully cleared before a fire is lighted, and the

generous season. These rangers have special districts assigned to them, and are required to inform all persons in their districts of the provisions of the Fire Act and to impress the necessity for care in the handling of fire. Notices of the chief provisions of the Act are also posted in conspicuous places. The rangers keep a record of the work done, and any information obtained, and make their report at the end of the season. In cases where the lands to be ranged are covered by licenses, one-half of the expenditure is borne by the license-holders. The result of this system has been very satisfactory, the cost entailed being very little compared with the saving effected by the great decrease in the number and destructiveness of forest fires.



Lunch at Sharp Lake, en route to Lake Temagaming.

fire must be carefully extinguished afterwards. Any person discharging firearms or dropping any burning substance must also be careful to see that no fire results therefrom. Survey and exploring parties are required to provide themselves with a copy of the Act, to be read out to the party once each week. Locomotives are also required to be properly protected by spark guards. Any person contravening the Act renders himself liable to a fine of \$50.00, or three months' imprisonment, and railway companies to a fine of \$100.00.

The most effective step which has been taken by the Ontario Government, however, is the system of fire ranging which was established in 1835. Fire rangers empowered to enforce the provisions of the Fire Act are appointed for the dan-

The Quebec system provides for the establishment of fire districts and the employment of fire rangers therein. Each district is to have a general superintendent, who will have power to require license holders and railways in any district to place the services of their employees at his disposal in case of fire, the salaries and expenses to be borne by the license holders, the railways and the Commissioner jointly. The Commissioner may also prohibit the setting out of fires during the winter season in time of drought.

The New Brunswick and Nova Scotia Acts are similar to and based upon the Ontario Act before the adoption of the fire ranging system, while Prince Edward Island has an act restricting the careless use of fire in such a way as to endanger

woods. In New Brunswick the Surveyor-General is given authority to appoint fire rangers and to pay the sum of \$25.00 for the conviction of any offender against the Act.

The Manitoba Act gives authority to the municipalities to appoint fire guardians, and such guardians have power to call out the necessary help to extinguish fires. The Act also provides for a fire commissioner, who may enquire into all fires on instructions from the Lieutenant-Governor-in-Council, or at the request of the municipality concerned, and judicial authority is given him for that purpose.

The North-West Territories Act appoints Justices of the Peace, Mounted Police officers, and all overseers of local improvement districts as fire guardians, and the Commissioner of Agriculture has authority to appoint others. The preventive measures in this and the Manitoba Act contain provisions especially required by an agricultural and prairie country.

The Bush Fire Act of British Columbia gives authority to every Government agent to enforce the provisions of the Act, and also requires that every pre-emptor, purchaser or lessee of Crown lands shall at the time of entry or application be furnished with a copy of the Act.

The Dominion Government has arranged for a system of fire guardians similar to that in Ontario on the timber lands under its control in Manitoba, the North-West Territories, and the railway belt in British Columbia.

A provision which should be noted is that requiring the clearing of the ground when starting fires. This is one of great importance, for, while the great r. being hurricane of fire in the tree tops is the one of which we hear most frequently, there is what is probably a more destructive class of fire from its continual and steady recurrence, that is the fire that creeps along the ground, burning up the vegetable mould and destroying seeds and seedlings, even though it may not affect the large trees. A treeless space may help to break the onrush of a high fire in the woods, but such a space, unless the ground is well cleared, is no obstacle to such a fire as this, and indeed it may only assist in giving the wind an opportunity to fan it into still more dangerous proportions. In this fact lies the necessity for the proper clearing away of the debris of lumbering operations and for care in the selection of locations for the starting of fires and in the extinguishing of them afterwards.

If the new Dominion Bureau of Forestry could undertake to collect as far as possible the records of the forest fires which have occurred throughout Canada, it would be a very useful piece of work, and would show in the most pointed way the great loss to the national wealth of which they have been the cause.

British Columbia Forestry Association.

A meeting of the executive of the British Columbia Forestry Association was held in the rooms of the Forest and Stream Club on the 29th of August, with Mr. Hewitt Bostock, M.P., in the chair, the following gentlemen also being present:—Messrs. H. Alexander, T. Wilson, T. Cunningham, Bushnell, Duncan, E. Lewis, Boak, Ross, Howard, and Colonel Falk Warren.

The by-laws and constitution, as drawn up by the committee, were submitted, discussed in detail, and adopted as a whole, after a few minor amendments had been made. These were set forth as the primary objects of the Association:—

1. To advocate and encourage judicious methods in dealing with forests and woodlands.

2. To awaken public interest in the results attending the wholesale destruction of forests in the deterioration of climate, diminution of fertility, drying up of rivers, streams, etc.

3. To endeavor to have further areas of unappropriated lands permanently reserved for timber purposes.

4. To encourage afforestation, promote tree planting, especially in treeless areas, upon farms, highways, in parks, villages, etc., and to regulate the felling of forest trees on lands granted to settlers.

5. To collect and disseminate information bearing on forestry in general.

6. To study the means whereby the present destruction of timber, incidental to clearing for settlement and cultivation, may no longer be a cost to the settler and a waste of public capital, but may be turned into an asset of revenue, without any charge to the settler.

7. To consider the advisability of the placing of inland waters under the Forest Department, and how the protection of these for the benefit of fish culture may be properly secured; and that the Forest Department be given charge of the protection of game and fish and of the destruction of noxious animals.

The constitution provides for a membership fee of \$1 per annum, or \$10 for life membership; also that the annual meeting be held in Vancouver on the second Monday of each year.

We are pleased to see in the formation of the British Columbia Association the increasing interest which is being taken in forestry. The conditions of the lumber industry in that Province are of a special nature, and differ to so great a degree from those of the other provinces that the formation of a Provincial Association is more of a necessity than elsewhere in the Dominion. We wish the British Columbia Association every success, and hope for a hearty co-operation between it and the Dominion Association.

Forest School at Yale.

Through the kindness of Professor Henry S. Graves, we are in receipt of a copy of the programme of the Yale Forest School, which has just been established as a result of the munificent liberality of the Pinchot family. Graduates of colleges and scientific schools are admitted to the course without examination, but for others an entrance examination in mathematics, botany, geology, chemistry, physics, German or French, English, and political economy must be passed. The regular course covers a period of two years. The subjects have been so arranged that nearly all the preliminary work is completed in the first year. Enough technical forestry is, however, taught during the first year to enable the students to make sylviculture studies, to investigate the growth of trees and forests, to establish forest plantations and to make thinnings and other classes of cuttings. The second year is devoted to advanced technical work in the class-room and the field. Several tracts of woodland will be selected at or near New Haven, and excursions and field work will form an important part of the instruction. After the spring vacation in the second year the entire work will be transferred to the field, partly at Millford, Penn., and for the remainder of the time in the Adirondaeks.

There will be also a Summer School of Forestry at Millford, covering a two months' course, which is intended for those wishing to obtain some general practical knowledge of forestry methods. This course should prove a very useful one to many persons interested in forestry who may find it impossible to take up the regular course.

* * *

It is interesting to note that a number of trees in the burnt district in the city of Ottawa are again struggling back to life. There were a large number of magnificent elms directly in the pathway of the fire, and some of these were so completely destroyed as to make it impossible for them to revive, and it was thought at first that all had been killed. A few, however, are again putting out leaves, and the prospects are that they will by another year be again fairly vigorous. Some of these trees were quite close to the houses which were destroyed by the fire, but in most cases the wind was in such a direction as to drive the fire away from them so that they did not receive as much damage as they would have had the wind been in another direction. It would take very many years to replace these trees as they stand at the present time, and it is very gratifying that even a few of them have been able to retain their vitality in spite of the injury they have received.

The American Forestry Association.

Henry James, second Assistant Secretary.

In April, 1882, the American Forestry Congress was organized in Cincinnati. The membership with which it began was very small. At that time it was only a year since Congress had made its first special appropriation for forest work under Dr. Hough and the Division of Forestry of the U. S. Department of Agriculture had been established. There were no forest reserves in either the United States or Canada. The separate states had not begun to wake up to the importance of preserving their forest resources and their water sheds, and throughout the country at large the people who knew what forestry is, or had any clear sense of the evils which would follow the wasteful and unthinking destruction of American forests, were few and far between. Today the association numbers about 1,350 members, and is growing at the rate of several hundred a year. It publishes a monthly magazine, and is co-operating heartily with many vigorous local organizations throughout the country. Nearly fifty million acres of public land have been set aside as forest reserves. In many states forest laws of more or less efficacy have been passed and a number of forest commissions and commissioners are regularly appointed. In the Federal Department of Agriculture the Division of Forestry has already accomplished a great deal, and is monthly increasing its usefulness to the country.

To give an account of the life of the American Forestry Association entirely apart from the history of these eighteen years in the forestry movement at large, would be impossible; partly because the promotion of this movement has been in so large a measure the work of the Association, and partly because the men who passed legislative forms and carried on the campaign of education were at the same time the life of the Association. A brief account of its career as an association is, however, interesting as showing how great and important a part of its history is buried in the larger field of the forestry movement. Considering the Association's object, this is probably the best thing that could be said of it.

At its meeting in Cincinnati, the "American Forestry Congress" did little more than organize itself, elect officers, stir up a good deal of local enthusiasm, and adjourn for what was to be officially recorded as its first meeting, in Montreal. As stated in the original draft of the constitution, the object of the Congress was, "to encourage the protection and planting of forest and ornamental trees, and to promote forest culture." The officers were: President, the Hon. Geo. P. Loring, the Commissioner of Agriculture; re-

cording secretary, W. L. DeBeck; corresponding secretary, D. D. Thompson; treasurer, John A. Gano; and a number of vice-presidents from different parts of the country. Mr. Gano declined the office of treasurer, and Mr. Geo. W. Trowbridge, of Glendale, Ohio, was elected to fill his place. The meeting in Montreal in 1882, for which all arrangements were made by Mr. Wm. Little, was most successful. The attendance was large, sixty-three papers were read, the press was much interested, and the membership increased. Without delay or mishap the Congress was launched on its career of usefulness. "The American Forestry Association," an organization which had existed since the seventies, but the activity of which had not been very great, was incorporated in the Congress. This latter did not change its name to the one it now bears for several years.

From this time on the history of the American Forestry Congress, later called the American Forestry Association, is marked by a few events of exceptional prominence, but in the main the immediate work of the Association was that of patient and persistent agitation for results which at the time, it was often difficult to perceive or define. Public opinion had to be stirred up and taught to express itself before reserves and much needed reforms could be obtained. The first thing to do was to get in touch with as many as possible of the people who were interested in the objects of the Association and to bring them into line. To this end two or more meetings were held in different parts of the country every year, and little by little different communities were interested and drawn into the movement for forest preservation. Frequently these meetings resulted in more or less immediate local legislative action; for bills and memorials to the State Legislature were often drafted, endorsed by the Association, and later presented. At one time the Association addressed a letter to the Governors of almost all the States, and at the same time memorialized their Legislatures. Wherever possible the establishment of local forestry associations was encouraged and promoted.

The need of a paid secretary who could give all his time to the work, is often mentioned in the records, but for many years the lack of funds and the difficulty of finding a suitable person, presented obstacles which could not be overcome. However the main thing to do was to circulate as much printed matter as possible, and to stand ready to make the most of any opportunity which might come the Association's way; and by one means or another a great deal was accomplished. At first some local paper or magazine was usually persuaded to publish and distribute records and reports of the meetings and speeches. After a few years, however, the Association began to publish its own

"proceedings." It also undertook to issue a regular bulletin. But of this only three numbers appeared, for the Pennsylvania Association, which later found in Dr. Kethrock a secretary who could give much of his time to its work, had begun to publish its bimonthly journal, *Forest Leaves*, and it was resolved to make that magazine the official organ of the American Association. Later the Association reached the point where it was possible for it to issue a journal of its own. It adopted the *Forester*, which had been founded by Dr. John Gifford in '95, and has issued it monthly since January, 1898. At the same time it abandoned the publication of the "Proceedings."

But the distribution of printed matter was only part of what could be done, and a large field of usefulness remained open to the activity of the Association as such. This was attended to chiefly by the Executive Committee, which, composed of Dr. B. E. Fernow, chief of the Division of Forestry from 1886 to 1893, and a few other men who were most actively interested in the work, accomplished a great deal. The Executive Committee, recently re-christened "The Board of Directors," kept a sharp watch on everything that went on in the country, and lost no opportunity of bringing the Association's support to any worthy object that needed its help, or of throwing its weight against what was bad. At different times it even employed an agent to look out for the progress of plans and projects which the Association had brought into Congress.

Speaking broadly there have been two periods in the Association's activity. These merge into each other so gradually that no dividing line can be drawn; but the distinction is now none the less evident. During the early years the efforts of the leaders of the forestry movement were directed to agitating for forest reserves and to bringing about action of one kind or another in the Federal or State Legislatures. As time went on, however, forest reserves were secured and many laws were passed. Now, although much still remains to be hoped for in the way of legislation, some of it can best be left to individual States, while a new and more difficult task has presented itself, that of turning the ground thus far gained to the best account. In some places the good laws which have been placed on the statute books are practically useless for lack of public opinion to compel their enforcement; everywhere the fire question is one in which popular ignorance and shortsightedness is the main source of evil; the reserves are still misunderstood and maltreated; and lastly the enormous but important work of interesting the private land owner has begun. Under Mr. Gifford Pinchot's leadership the Division of Forestry is turning its energies in the directions thus indicated as much as in

those of scientific investigation, and it remains for the Forestry Association to do all it can to help. This means the old educational campaign over again, but on a much more difficult plane. It is comparatively easy to show people that the country needs forest preservation, comparatively hard to persuade them that only through definite effort on their part can they make sure of it. The Association realizes that the only way to do this is to get at the scattered, but at last many, individuals who are willing or eager to give ear, and that the difference between a potential member and one who is actually paying his dues and receiving his magazine is very great. The only way to bring a given community up to the mark is to draw in some of its citizens, and to hope that through them light will be spread. Consequently the American Forestry Association is now making a special effort to enlarge its membership.

In looking back over the years since 1882 and asking what the association has done, it is possible to point to a few great and important measures, like the passage of the act that empowered the President of the United States to set aside forest reserves, which can be traced largely to its influence. The importance of some of these can hardly be exaggerated. The one just referred to, and the subsequent appointment in 1893 of the National Forestry Commission to report on "The inauguration of a national forest policy," in the procuring of which the Association played its part, have made it possible to save the forests on hundreds of thousands of square miles of non-agricultural mountain lands in the West from wasteful exploitation. Much as the wisdom of creating these reserves is already applauded, it will probably not be appreciated in proportion to its good results for two or perhaps more generations. Again the adoption of the Forester, and thereby the establishment of an organ of regular communication between members, wherever situated, and with the general public, is also a step of which the Association feels justly proud. But considering the whole eighteen years of the Association's activity it would often be useless, if not impossible, to parse at any date and say, "This much had been accomplished within the last twelve months." The fruit of the Association's labors is largely in the public interest in forestry, which is at last vigorous all over the United States and now increasingly so in Canada, and without which forest laws, commissions, and reforms can avail nothing. For many years the Association has furnished this interest with a rallying ground and a means for the expression of its opinions in every sort of place and on all kinds of occasions. Little by little it has helped it to grow, and though its own size has been small it has wrought changes of which the importance can hardly be exaggerated. The fact that the forestry movement is finally so much larger than the Association itself, is a sign to be rejoiced over.

The public has got somewhat accustomed to the presence of the Association, and as far as the organization's internal workings are concerned, it is now chiefly important that there be some individual or committee to act as a bureau of information about whatever is going on in the country at large, and to see to it that the Association misses no opportunity, however small, of promoting the interests of forestry.



TWO very highly bred collies arrived here the other week from Belfast en route for New York. They were consigned to Mr. Jas.

Watson, secretary of the American Collie Club, by whom they were purchased and imported, and consisted of a dog and bitch. The dog—Parkhill Galopin (late Ormskirk Leo)—was sired by Ormskirk Galopin ex Ormskirk Lioness, his grandsire being that famous dog Ormskirk Emerald, he by the equally famous Heather Ralph. Parkhill Galopin's dam is also descended from Heather Ralph on the male side and from ch. Rufford Ormond on the female. He is a finely marked sable and white, good length of head, large size, splendid bone, and being only three years old should make a grand stud dog. He was bred by that widely known judge and breeder, T. H. Stretch, of Ormskirk, who has raised many of the most celebrated collie winners of recent years. Parkhill Galopin's winnings are: One first at Ayr, three at Govan, three at Greenock and special for best collie in the show. The bitch, Wishaw Jess, is by Headlam Galopin ex Stanton Lass. On the male side Wishaw Jess's grandsire is Ormskirk Galopin, on the female ch. Rightaway. The bitch is a tri-color, nicely marked black, tan and white, and was bred by the well-known Scottish breeder, Robert Tait, of Wishaw. Jess is of good size, with finely formed head of good length, and in whelp to her fellow traveller. The dogs were at the kennels of Mr. Joseph Reid, Logan's Farm, for a few days, where they were inspected by a number of the local fanciers, and, of course, were subjected to a close scrutiny and a good deal of criticism. Some of it favorable and some otherwise. The general opinion was, however, that such a capable judge as Mr. Watson knows just exactly where he is when he imported a "Galopin" dog for use in the United States.

Laurel Laddie, the valuable collie belonging to Mr. Newster, Peterborough, is dead. His death was the result of the accident he met with and recorded in last month's issue. Everything possible was done to preserve his life, but the shock, combined with internal injuries received at the time, proved too much for an otherwise strong constitution.

Writing on the subject of "Dandy Dogs" a well-known writer says: "But it is when their pets are sick that ladies of high de-

gree cast common-sense completely overboard. The fashionable canine surgeons are not easily astonished—as you may imagine. At the same time, ladies give them infinite trouble by their innumerable questions, not to mention the demonstrative agony they suffer over the ailments of their darlings. The Earl and Countess of — burst into the very dingy surgery of an eminent "vet" one day and asked after the health of a sick pug, who lay there in a basket; the little brute was a monument of ugliness. "He is dying, my lord; dying, my lady," replied the "vet" (a most correct man), with a sympathetic catch in his voice. Lady — at once became hysterical; she threw herself prostrate on the dusty floor in her superb dress and sobbed aloud, commanding the dignified surgeon to kneel down and pray for the departing pug. The noble earl, too, was deeply moved, but he controlled his emotion, merely glaring at the bottles on the shelves and sniffing audibly.

"Some doting mistresses send their suffering dogs to the 'vet's' house to be boarded there under the surgeon's constant care. Now and then the latter is obliged to intercept the extravagant dainties brought for his patient, and substitute plain, wholesome food.

"Here is a funny story in this connection. One of the leading canine specialists was sent for by a titled lady to see her poodle, who was in a bad way. The moment the animal came into the drawing-room, the dog-doctor knew it was a case of over-feeding; so 'Jacko' was sent with tremendous pomp to the surgeon's house to be treated. His anxious mistress did not neglect him, though. Twice a day, a splendid carriage drove up, and a footman brought round to the surgeon's man a massive silver dish, whereon reposed some succulent bird. 'How is Jacko to-day?' the footman would ask, according to instructions. 'Well, a little better, James; but still poorly,' the other would reply. The surgeon's man would then take the tempting meal round to the stables, eat it with immense relish, and then clean and polish the silver ready for the exchange dish, which he knew would be brought along in a few hours. For many days this went on, till at last the surgeon remarked to his man: 'I shall have to be sending Jacko home soon.' 'Don't do it yet, sir,' was the earnest and unexpected reply; 'I never lived so well in my life.'

"Another really clever canine 'vet' with a lucrative practice told me he had a simple way of treating ladies' pampered pets.

On receiving an over-fed toy dog, he would put him into a disused brick oven with a crust of bread, an onion, and an old boot. When the dog gnawed the bread, the surgeon wrote the mistress that the dear little thing was 'doing nicely.' When it commenced operations on the onion, word was sent that the pet was 'decidedly better;' but when the animal tackled the boot, the lady was respectfully informed that her darling was 'ready to be removed.'—a rational, if drastic cure."

The first bench show held in the United States was at Mincola, Suffolk County, New York, on October 7th, 1874. It had 125 exhibits.

The Western Canada Kennel Club's field trials were held at La Salle, Manitoba, last month, lasting two days. Mr. Frank Richards judged both the Derby and All Age stakes, giving good satisfaction. The weather was very pleasant, being mostly clear weather. The Derby contained ten starters, nearly all of which showed high class form though in an unfinished condition as to training. This stake was finished at noon the first day, the winners being Dum Dum, first; Okawa Valley, second; Fly, third; and Wapella Joe, Dandy and Sheriff V. H. C.

The All Age stage was commenced in the afternoon, the first series of fifteen starters being run off before dark, the second series with Rod O'Light, Jr., Ella Wheeler, Shot, Nettie Kirby, Sport IV., Prince Ightfield, Rill, Fanlight, Ightfield Ripple and Manitoba Bell carried over. The winners were Sport IV., first; Rod O'Light, second; Prince, third. This stake was exceptionally good, and the trials a success, the only draw-back being the scarcity of birds found.

The care of a dog's teeth is an important matter, which is not so much attended to by any means as it ought to be—probably, we suppose, because people shrink from what they regard as a not very pleasant duty. Yet a comparatively small amount of work is necessary to ensure the saving of a great deal of pain to, and trouble with, the animal later on. If we commence early, and from puppyhood upwards give attention to the teeth, they will certainly be preserved to the animal for a much longer time than otherwise would have been the case. Of course such an operation as drawing a tooth or part of a tooth cannot be undertaken successfully except by a veterinary surgeon or some other competent person, who has the proper instruments for the purpose. A great deal of the unpleasantness which often encircles dogs might be avoided entirely by attention to their teeth. The teeth of house dogs are apt to decay much sooner than the teeth of dogs kept outside, because there is an

almost incurable disposition to give house dogs all sorts of nice things, which do them no good, but which certainly do their teeth a great deal of harm.

In regard to puppies, the only time they need attention is when they are getting their second teeth. Then it is necessary to see that they are not troubled by anything in the nature of a loose tooth which needs to be lifted out, and which, if not removed, will, of course, interfere with the growth of the permanent tooth below it, and, by setting up inflammation, will cause the animal a great deal of unnecessary suffering. In most large towns a veterinary surgeon is to be found who has made a special study of dogs, and whose advice should be sought now and

again in regard to the teeth. This is far better than a lot of amateur tinkering. It is more in the direction of preventing the teeth from becoming unpleasant that the owner can act without advice. It is especially the case with animals that are getting old that their teeth become coated more or less thoroughly with tartar, which gradually works its way down toward the roots, forcing the teeth apart and setting up inflammation of the gums.

When a dog has unpleasant teeth, it is



Pickeral Lake, en route to Lake Temagaming.

necessary that some medicine should be given from time to time, and first of all the animal should be taken to a specialist to have any stumps or decayed teeth removed, because until this operation has been completed it is quite useless to hope for a better state of things. But when once the operative part has been completed, all that remains is to see that the dog has some stimulating and alterative medicine, and then take care that attention is given regularly to the state of the teeth to prevent them from going back to their former condition. If, when the teeth are in a bad state they be still neglected, the result will most likely be to establish canker in the mouth, which is a most offensive trouble and causes the dog a great deal of suffering and misery. Canker in the mouth is the

This cannot be altogether prevented, but it can to a very large extent by the use of a suitable mouth wash now and again if there be any sign of an accumulation of tartar. Various things have been recommended, but the best lotion for preventing the growth of tartar is a very weak solution of chloride of zinc: five grains of chlo-

ride of zinc dissolved in an ordinary eight-ounce medicine bottle will be of valuable strength. It should be used once a day for a few days to the teeth of any dog which show an accumulation of tartar, and its effect will be to gradually soften the tartar, some of which can then be carefully scraped away by the aid of a pen-knife. Of course, it will be necessary to deal with a matter like this very carefully, as it will not do to hurt the dog, for then there will be a great difficulty in getting him to allow any further operation. The best plan is to proceed slowly and only do a little at a time; it is quite useless to attempt to finish off a job like this thoroughly and satisfactorily at one sitting.

beginning of the end of a good many pet dogs which have been pampered and treated with mistaken kindness, and when it sets in, unless it is attended to at once, it becomes so unpleasant and causes so much difficulty that it is desirable, almost, to put the dog out of the way at once, instead of attempting any cure. As regards the treatment when matters have arrived at this melancholy stage, that consists, first of all, in a proper examination of the mouth to see whether any teeth, or portions of teeth, need to be removed. Then a lotion will have to be used, and for this purpose the chloride of zinc lotion mentioned in a preceding paragraph will answer very well.

The subject we have just been dealing with reminds us of another matter which can very easily be attended to, but which, if neglected, causes a great deal of pain to the animal, and the ailment, like history, repeats itself, and finally becomes well-nigh incurable. We refer to the inflamed state of the claws from which many dogs suffer, especially those used for sporting purposes, which are more apt than other dogs to gather irritant matter when working in hedge bottoms and scratching about out of doers. The flesh around the claws becomes red and swollen, and the dog seems to have difficulty in walking; after a time there is a discharge of pus, and the animal suffers a great deal of pain. The treatment for this consists in bathing the paws two or three times a day in warm water containing a small quantity of permanganate of potassium, and after each time of bathing anoint with a little simple ointment. The dog should also have occasional doses of laxative medicine, such as cascara sagrada, or, better still, Epsom salts, which is one of the very best things that can possibly be given to clear the blood. The dog under treatment should be rested for a day or two, and should be housed on a flooring of soft material, such as hay. If the animal appears to suffer very great pain, instead of using permanganate of potassium a little tincture of opium will give relief. The solution of lead known as "Gonlard's Extract" makes a good lotion also, and perhaps a combination of Gonlard's Extract and tincture of opium will give the best results of all.

It is not only by scratching and other similar causes that dogs have trouble with their claws. There is another cause for inflammation and lameness which is diametrically opposite to that which has been described in the preceding paragraph, and chiefly affects lap dogs and other lazy specimens of the canine tribe, and that springs from overgrown claws, which, when they become sufficiently elongated, have a tendency to turn in and gradually work their way into the flesh. It seems hardly creditable that negligence should be carried so far as to allow a state of things like this to come about. Yet it is so, and of course,

the things can be easily prevented by clipping off the ends of the claws cautiously so as not to cut into the quick. The reason why dogs get overgrown claws is, we presume, that they are never allowed to run about on the hard roads, where, in the case of an ordinary animal, the mere mechanical effect produced by rubbing against the stones will keep the claws filed down. We always advocate an examination of a dog's foot if ever he shows the slightest signs of lameness, so that it can be ascertained at once whether he has a thorn or other foreign substance sticking in the foot, and then, of course, it will be easy to see whether anything has gone wrong with one or other of the nails.—Our Dogs.

Under the title, "The Ambulance Dog," a German captain has recently published a pamphlet, which gives some interesting details of the work done by dogs trained for this noble purpose. A society exists in Germany which occupies itself solely with this class of dog and last year it could boast of 700 members and forty dogs. By way of trial there are collies attached to six battalions of Chasseurs, and German sheep-dogs and Airedales to four other battalions. Preference is given to bitches as being more reliable. About \$1,000 is spent annually in training these animals. In the current number of *The Strand* magazine there appears a very interesting illustrated interview with Herr Bungartz, the originator of the scheme for employing dogs in this manner, from the pen of Frederick A. Talbot. By way of introduction the writer says:

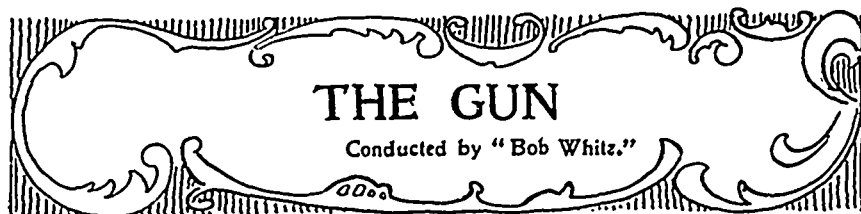
Few members of the brute creation possess the intelligence, sagacity, fidelity, and reliability with which this animal is so characteristically gifted. The shepherd would sooner part with his home than be deprived of his faithful collie—the safeguard of his flock. Then what an unfading, glorious roll of fame is associated with the dogs of St. Bernard in their heroic rescues of exhausted travellers from death. Numerous instances could be cited where the dog has rendered invaluable services as life-saver, messenger, guardian, and what not. But it is extremely doubtful whether the animal has ever been subjected to a stranger and more dangerous, albeit humane and necessary, service than that for which it is retained in the German army. The military authorities of that country have trained the dog to become a four-footed member of the Red Cross Society, to minister to and to succor the wounded on the battlefield, besides fulfilling other duties which it would be either impossible, or undesirable, for an ordinary soldier to fulfil. Needless to say the dog, with its innate proclivity, has accommodated itself to the requirements of its new duties, notwithstanding their arduous nature, with great readiness, and has already proved

itself to be, under certain conditions, a more apt and thorough servant than the soldier himself.

The outfit of the dog consists of a little saddle-bag fastened round his body. It contains a small quantity of nourishing and stimulating refreshments. Then he also carries a small supply of surgical bandages in a wallet something similar to that which is sewn up in a coat of every English soldier, and which the man can utilize for the purpose of binding up his own wounds if he is sufficiently strong to do so. Over these two bags is wound a coverlet with a large Red Cross imprinted upon it, to designate the mission in which the dog is engaged. The dog is accompanied by a conductor. When the battle field is reached the dog immediately commences its search, and so sensitive are its faculties that it will trace out the concealed wounded with astonishing celerity and surety. When it has found the man it lies down beside him and attracts his attention. The man, if he be not too exhausted, releases the saddle-bag containing the refreshments, and also the surgical bandages. The dog remains by him, and presently, if the man has regained his strength and bound up his wounds, he follows the dog, who guides him quickly back to the conductor, who in turn signals the ambulance bearers, and the rescued soldier is quickly removed to the hospital. If, when the dog reaches a wounded man, and after lying beside him for a few minutes finds that the soldier makes no effort to obtain the food, the animal recognizes intuitively that something serious is afoot, and accordingly hastens back to his conductor, who, seeing that the bag on the animal's back has not been touched, and answering the dog's mute appeals, follows it, and is soon brought to the wounded soldier, who was, perhaps, too weak to assist himself upon the dog's former visit.

But it is at night that the dog displays its cleverness to the best advantage. In addition to the foregoing accoutrements adjusted to its body the animal is provided with a little bell upon its collar, something similar to the sheep bell, which is constantly tinkling. The wounded soldiers are able to hear this tinkling, and the slightest movement they may make is immediately realized by the dog, since its ear is far more sensitive than the human ear, so that it is enabled to receive sounds which are absolutely inaudible to the conductor.

Herr Bungartz is of opinion that the dogs best adapted, and indeed the only ones that can accomplish the task satisfactorily, are the Scotch collies. Not the modern collie, however, which has somewhat deteriorated in the essential characteristics for which it has so long been famed, but the old type of collie, now somewhat difficult to obtain. But it would be unfair to quote further from what is really an instructive as well as an interesting article, and so we leave our readers to procure it for themselves, assuring them that its perusal will afford both profit and enjoyment.



Sherbrooke (Que.) Gun Club Tournament.

The weather was excellent. Many expected Canadians were not present. The scores are as follows:

First Day, Sept. 6.

Events 1, 6, were at 10 targets; 2, 3, 4, 7, 8, 9, 11, 12, at fifteen targets; 5 and 10 at twenty targets; the last figure is percentage for those shooting in all matches:

J. S. Fanning—10, 15, 13, 14, 17, 9, 14, 14, 13, 10, 15, 13, 91.6.
 B. Le Roy Woodward—8, 14, 14, 13, 16, 9, 14, 15, 14, 18, 14, 15, 86.1.
 Capt. Bartlett—8, 14, 14, 10, 16, 8, 13, 13, 12, 17, 15, 15, 86.1.
 W. L. Colville—10, 10, 14, 10, 15, 10, 11, 13, 12, 18, 12, 11, 81.1.
 T. M. Craig—7, 10, 13, 13, 16, 8, 15, 11, 14, 16, 13, 13, 82.7.
 C. G. Thompson—7, 11, 10, 10, 19, 6, 11, 12, 13, 18, 13, 14, 80.
 C. D. White—10, 9, 13, 15, 17, 10, 14, 8, 12, 12, 11, 78.8.
 J. G. Walton—8, 11, 11, 11, 16, 8, 12, 11, 15, 15, 15, 12, 11, 78.3.
 N. G. Bray—7, 9, 12, 12, 15, 8, 12, 12, 14, 15, 13, 11, 77.7.
 G. B. Walton—7, 12, 10, 12, 17, 8, 14, 12, 10, 16.
 W. E. Loomis—6, 12, 13, 9, 11, 8, 10, 11, 6, 14.
 S. Mathieson—9, 10, 13, 0, 14, 0, 0, 10.
 H. G. Bullard—11, 11, 10, 11, 5, 8, 6, 10.
 B. H. Norton—6, 9, 7, 7, 6, 9, 8.
 W. Neil—6, 10, 13, 9, 10.
 W. Galbraith—7, 16, 9.

Second Day, Sept. 7.

Nos. 1 and 10 at ten targets; 2, 3, 4, 7, 8, 9, 11, 12 at fifteen targets; 5 and 10 at twenty targets:

B. LeRoy Woodward—9, 13, 12, 14, 18, 9, 14, 14, 13, 20, 14, 14; 90.1.
 J. S. Fanning—8, 14, 14, 11, 17, 10, 13, 12, 15, 19, 15, 13; 89.4.
 Capt. Bartlett—7, 13, 14, 11, 17, 8, 14, 12, 15, 15, 12, 13, 83.8.
 E. G. White—8, 15, 11, 12, 15, 9, 14, 13, 12, 13, 10, 14; 81.1.
 W. L. Colville—7, 13, 13, 15, 18, 9, 12, 8, 11, 16, 12, 11; 80.5.
 T. M. Craig—8, 13, 11, 13, 18, 8, 10, 10, 14, 10, 14, 15; 84.4.
 D. P. Foster—9, 12, 11, 9, 16, 9, 15, 13, 14, 16, 13, 11; 82.2.
 N. G. Bray—9, 11, 12, 12, 16, 8, 12, 10, 14, 15, 13, 14; 81.1.
 J. G. Walton—7, 12, 11, 11, 16, 9, 13, 12, 13, 17, 11, 13; 80.5.
 C. G. Thompson—8, 13, 10, 10, 18, 6, 11, 9, 12, 15, 13, 13; 71.1.
 C. D. White—5, 11, 13, 10, 16, 8, 12, 8, 12, 17, 11, 14; 70.5.
 B. H. Norton—7, 12, 11, 9, 10, 5, 5, 9, 4, 17, 6, 6.

J. H. Cameron—4, 6, 9, 9, 9, 8, 7, 4, 10, 13, 7.
 G. B. Walton—9, 11, 10, 12.
 W. E. Loomis—15, 10, 9, 14, 4, 8, 8.
 J. W. Kirkpatrick—8, 11, 12.
 R. T. Eastman—11, 13.
 H. G. Bullard—10, 15, 5, 9, 12, 11, 12.
 W. B. Neil—8.
 C. H. Foss—12, 11.

Toronto Rod and Gun Club.

The annual meeting of the above club was held on Monday, September 17th, in the parlors of the Dominion Hotel, corner of Queen and Sumach Streets. The meeting was a representative one, and certainly the most successful ever held by the club. There was a splendid turnout of members, all of whom were enthusiastic over the prospects for the best season's pleasure they have yet experienced. The gentlemen elected to the various offices are well-known lovers of the rod and gun, and in whom the members have every confidence.

Through the courtesy of the directors of the Ontario Jockey Club, extended since the formation of the Toronto Rod and Gun Club, a portion of Woodbine track has been placed at the disposal of the club for the purposes of a shooting grounds, and no doubt the same privilege will be granted during this season. No finer or more convenient location can be found in Canada.

Arrangements have been fully made for the supplying and trapping of pigeons by Mr. J. H. Bontoft, who is a past-master in the business. It was decided to reduce the cost of blue rocks from a cent and a half each to one cent each, a change which will be much appreciated. Sparrows will also be provided by an expert.

As the club is in a sound financial condition, instructions were given to have it incorporated. This will not only be a protection to the members, but will give the club a wider scope.

The officers elected were as follows:—President, Mr. J. Edwin Cook; vice-president, Mr. R. G. Davidson; secretary, Mr. Harry J. Page; treasurer, Mr. J. H. Thompson; captain, Mr. J. J. Coulter; official referee, Mr. Thomas D. Ellis. Executive Committee—Messrs. Thomas A. Duff, Thomas D. Ellis, Frank Ball, W. W. Jeffers, Alf. J. Jackson, M. Hutchinson, and Thos. Fitzhenry.

A very cordial vote of thanks was tendered to the retiring president, Mr. Alf.

J. Jackson, for the efficient manner in which he discharged his duties since the inauguration of the club. It is felt by everyone that Mr. Jackson did more than any other member of the club, and its success is largely attributable to the efforts put forth by him in its behalf.

All lovers of the rod and gun are invited to join. A splendid season's enjoyment awaits them. The membership fee is \$2 per annum, and the secretary's address is 426 Sackville Street.

Toronto Traps—McDowell's Shoot.

There was a big turnout to McDowell's Labor Day shoot, and several interesting team and individual matches were shot. The scores are:—

Team match at 10 birds—	
Thompson 9	Wilson 7
Marshall 8	Richardson 6
Franks 8	Moore 7

Total 23	Total 20
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Match No. 2—	
Richardson 7	Franks 7
Thompson 9	Wilson 7
Marshall 7	Moore 6

Total 23	Total 20
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Match No. 3—	
Richardson 8	Moore 9
Marshall 8	Thompson 8
Wilson 7	Franks 8
Roberts 7	Richards 4

Total 30	Total 29
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Match No. 4, 25 birds—	
Thompson 21	Richardson 16
Moore 21	Roberts 16
Marshall 19	Richards 12
Wilson 18	

Match No. 5, 10 birds—	
Thompson 9	Wilson 7
Franks 8	Turner 7
Marshall 8	Andrews 6
Moore 8	Richards 6
Richardson 7	

Hamilton Gun Club Tournament.

The autumn tournament of the Hamilton Gun Club, September 1 and 3, was a big success, an attractive programme bringing together a great many Canadian crack shots. Among the visitors from a distance were:—F. H. Conover, Leamington; J. Wayper, the Hespeler crack; Pellard, Chicago; H. D. Bates, Ridgetown, champion live bird shot of Canada and the United States; G. W. Price, Lt. Williams; Bradley, whose shooting name is Robin Hood; Thomas, Toronto; the Brantford team—Montgomery, Summerhays, Westbrook and Cutcliffe; Frank Mitchell, Sarnia; Robins; G. Reid, Dunnville and J. Townsend, Toronto.

The proceedings commenced with the hoisting of a brand new flag, presented to the club by Mr. George Crawford, Mr. Birdsall, secretary, welcoming the visitors in a short, pithy speech.

Conover, the Leamington man, shot only for the score and not for the prizes. He represents the celebrated Dupont Com-

pany, of Wilmington, Del., and his own work was the best possible sort of advertisement for his company's goods. He shot in every event, and made the highest aggregate of all those who took in all the events.

Summerhays and Montgomery, of the Brantford team, showed splendid form, the latter in particular being at or near the top in every event. He did not compete in the last event of the day, or certainly would have carried off the day's honors.

Dr. Wilson shot in the best form of all the local contestants, and was well up in every event in which he took part.

The big merchandise event produced five scores of 20 each, and the first prize went to Harry Graham, of Hamilton, in the shoot-off. The other 20's were G. W. Price, St. Williams; J. Wayper, Hespeler; Robins, of Dunnville, and George Hunter, of Hamilton.

The officers of the club are:—Dr. J. E. Overholt, president; W. Langhorn, vice-president; Harry Graham, secretary; F. B. Vallance, treasurer; James Crooks, captain. The Tournament Committee is:—W. A. Lees, Dr. Hunt, George Crawford, Charles Brigger, Albert Smyth, T. Upton and T. Birdsall. Mr. W. A. Lees is referee.

FIRST DAY.

Event No. 1, 10-bird sweep, \$1 entrance—Wayper 10, Graham 9, Summerhays 9, Montgomery 9, Conover 8, Pollard 8, Cutcliffe 7, Westbrook 6, Murdoch 6, H. D. Bates 6, Price 6, Dr. Hunt 6, Birdsall 6, Bennett 4.

Event No. 2, 20-bird sweep, \$5 added by club, \$2 entrance—Montgomery 19, Conover 18, Price 18, Summerhays 17, Wayper 17, Cutcliffe 15, Graham 14, H. D. Bates 13, Brigger 13, Westbrook 12, Pollard 12, Bennett 12, Fletcher 12, Stewart 12.

Event No. 3, 15-bird sweep, \$1.50 entrance—Conover 14, Summerhays 14, Price 14, Montgomery 13, Murdoch 13, Cutcliffe 13, Fletcher 13, Wayper 12, H. D. Bates 12, Dr. Wilson 11, Thomas 11, Brigger 10, Westbrook 10, Pollard 6.

Event No. 4, 15-bird sweep, \$3 added by club, \$1.50 entrance—Montgomery 14, Wayper 13, Summerhays 13, Fletcher 2, Brigger 12, Dr. Wilson 12, Conover 11, Upton 11, Price 11, A. D. Bates 11, C. Hunt 11, Cline 11, Westbrook 10, Graham 10, Cutcliffe 10, J. Crooks 9, H. D. Bates 8, Pollard 8.

Event No. 5, 20-bird sweep, \$5 added by club, \$2 entrance—Montgomery 18, Price 18, Fletcher 18, Dr. Wilson 17, Summerhays 16, Westbrook 16, H. D. Bates 16, Wayper 15, Conover 14, Bennett 14, A. D. Bates 14, Cline 13, Brigger 12, Bang 10, Upton 8.

Event No. 6, 10-bird sweep, entrance \$1—Conover 10, Summerhays 10, Montgomery 10, Dr. Wilson 9, Price 9, Fletcher 8, Westbrook 8, Wayper 8, Pollard 7, Murdoch 6, Graham 6, Cutcliffe 6, Brigger 6, Dr. Hunt 5, Cline 5.

Event No. 7, 15-bird sweep, \$3 added by club, \$1.50 entrance—Brigger 14, Cline 14, Montgomery 14, Conover 13, Dr. Wilson 13, H. D. Bates 13, Summerhays 13, Wayper 12, Price 11, Westbrook 10, Fletcher 9, A. D. Bates 8, Bang 7, Cutcliffe 6, Bennett 3.

Event No. 8, 20-bird sweep, \$5 added by club, \$2 entrance—Conover 19, Dr. Wilson 19, Montgomery 18, Summerhays 17, H. D. Bates 16, Cline 15, Price 3, Brigger 11.

Event No. 9, 15-bird sweep, \$1.50 entrance—Conover 14, Dr. Wilson 13, Summerhays 11, Price 10, Bradley 8.

Event No. 11, 20-bird sweep, \$5 added by club, \$2 entrance—Montgomery 18, H. D. Bates 17, Price 17, Summerhays 16, Dr. Wilson 15, Wayper 15, Conover 15, Cline 13, Brigger 13, Westbrook 13.

Event No. 12, 15-bird sweep, \$1.50 entrance—Montgomery 14, Westbrook 14, Conover 13, Summerhays 13, Dr. Wilson 12, Brigger 12, Cline 12, H. D. Bates 12, Price 12, A. D. Bates 12, Bang 10, Pollard 9, Bennett 7, Upton 7, Mitchell 7.

SECOND DAY.

Event No. 1, 10-bird sweep, \$1 entrance—Birdsall 10, Conover 10, Cline 9, Price 9, Wayper 9, Mitchell 9, Montgomery 9, H. D. Bates 9, Dr. Wilson 8, Upton 8, H. D. Bates 7, Summerhays 7, Brigger 7, Bennett 7, Pollard 6, Westbrook 5, Bang 3.

Event No. 2, 20-bird sweep, \$5 added, \$2 entrance—H. D. Bates 20, Wayper 20, Price 19, Montgomery 18, Summerhays 17, Dr. Wilson 16, Brigger 16, Conover 15, Wayper 15, Robins 15.

Event No. 3, 15-bird sweep, \$3 added, \$1.50 entrance—G. Reid 15, Summerhays 15, Bennett 14, Conover 14, Westbrook 14, Montgomery 14, Price 13, Robins 13, Thomas 12, Mudd 12, Dr. Wilson 11, H. D. Bates 11, Westbrook 11, Pollard 11, Cline 10.

Event No. 4, 15-bird sweep, \$1.50 entrance—Wayper 15, Montgomery 14, Robins 14, Dr. Wilson 13, Summerhays 13, Price 13, H. D. Bates 12, Mudd 12, Cutcliffe 12, Conover 11, Brigger 10, Westbrook 9, Mitchell 9, Pollard 9, Lees 7.

Event No. 5, 20-bird sweep, \$5 added, \$2 entrance—Wayper 20, Wilson 19, Montgomery 18, Summerhays 18, Conover 16, H. D. Bates 15, Bennett 15, Reid 15, Brigger 14, Price 14, Westbrook 13, Robins 13, Thomas 13, Cutcliffe 11, Townsend 10.

Event No. 6, 25 bird handicap for Bell organ, valued at \$75, entrance \$3—

	Hit.	Given.	Ttl.
H. D. Bates	23	1	24
Summerhays	24	0	24
Dr. Wilson	22	1	23
Bennett	20	3	23
Montgomery	23	0	23
Wayper	22	0	22
A. D. Bates	18	3	21
Price	20	1	21
Upton	17	3	20
Brigger	18	2	20
Birdsall	19	1	20
Graham	20	0	20
Crawford	13	5	18
E. W. Clifford	13	5	18
Conover, birds only	24	0	24

Shoot off of tie:—
H. D. Bates..... 21 1 22
Summerhays..... 21 0 21

Event No. 7, 15 bird sweep, \$3 added; \$1.50 entrance—Price 15, Conover 14, Summerhays 14, Montgomery 14, Mudd 14, Brigger 13, Wayper 13, Reid, 13, Robins 12, Wilson 11, H. D. Bates 10, Westbrook 10, Birdsall 8, Bennett 7, A. E. Clifford 6.

Event No. 8, 20 bird sweep, \$5 added; \$2 entrance—Montgomery 20, Birdsall 19, Conover 19, Summerhays 19, Wayper 10, Wilson 17, Brigger 16, H. D. Bates 16, Price 16, Bang 15.

Event No. 9, 15 bird sweep, entrance \$1.50—Conover 15, Summerhays 15, Wayper 14, Montgomery 14, Price 13, Wilson 12, Thomas 12, Brigger 10, Upton 7.

No. 10 event (unfinished first day), merchandise shoot, 33 prizes, best two scores in five trials at ten birds each to count—H. Graham 20, Price 20, Wayper 20, Robins 20, Hunter 20, J. Smyth 19, Montgomery 19, Summerhays 19, Cline 19, Bang 19, Upton 19, Cutcliffe 19, G. Reid, Dunnville, 19, Dr. Wilson 19, Birdsall 19, H. D. Bates 18, Oliver 18, Dr. Hunt 18, Bennett 18, Mudd 18, A. D. Bates 17, M. Fletcher 17, Brigger 17, H. Dvnes 17, Tremayne 16, W. Lees 16, A. W. Palmer 15, W. Stewart 15, Westbrook 15, Crawford 15, A. E. Clifford 14, Townsend 14, E. W. Clifford 13.

The above 33 men won the prizes in order. The 20's shot off and Harry Graham, of this city, and G. W. Price, of St. Williams, kept on hitting every target so long that they at last agreed to stop. Graham taking first prize, a \$35 sewing machine, and Price (by his own choice) second prize, a \$30 case of cutlery. In addition to the winners the following men shot one or more series and made the scores given:—James Crooks, birds only, 18; Conover, birds only, at two series only, 16; Murdoch, 12; Johnson, 11; Mitchell, 11, A. Smyth, one series only, 7; Griffith, 5; C. Hunt, one series only, 5; G. Reid, Hamilton, one series only, 4.

Walkerville Tournament.

Walkerville Gun Club held their annual tournament on Labor Day, and, as usual, it proved one of the best shoots of the season. The club this year installed a magantrap, and this contributed to the attractiveness of the shoot.

The principal events of the day were the contest for the King trophy, representing the championship of Essex County; the Walker tankard, the high average prize, and the three-man team race. The King trophy had been redeemed from W. A. Smith, Kingsville, who had held it for over a year, and it was hotly contested for by J. T. Miner, Kingsville, and A. W. Reid, Walkerville. These tied with a score of 60 each out of 50 singles and 10 pairs, and Mr. Reid won on shooting off the tie.

The contest for the Walker trophy was also a hot one between these two cracks. Miner lead nearly all day, but was tied by Reid in the last event but one, and in shooting off the latter, a short race at 10 birds, Mr. Reid was again victorious. This being his second win of the Walker trophy, it became his absolute property.

The three-man team race proved a victory for Messrs. Smith and Miner, Kingsville, and "Walsrode" Conover, Leamington, who each scored 14 out of 15, or a total of 42 out of 45, beating the next best team by 4 birds.

The high average cash prizes were won by J. T. Miner, 86; "Walsrode" Conover 83, and T. Wear 82 out of 100 shot at.

The following are the scores, the contest for the King trophy being at 50 single and 10 pairs or 70 targets, and for the

Walker trophy 100 singles, this score also including that for high average:—

Name.	King Trophy.	Walker Trophy.
W. A. Smith, Kingsville....	50	81
J. T. Miner, Kingsville....	60	86
E. G. Swift, Walkerville... 45	75	
G. W. Mutter, Walkerville		76
T. Webster, Walkerville....	—	76
A. W. Reid, Walkerville....	60	88
E. C. Clark, Walkerville....	55	78
T. Reid, Walkerville.....	53	70
T. Wear, Windsor.....	60	82
"Walsrode," Leamington....	56	83
Cox, Detroit ..	56	—
Cady, Detroit..	55	—

Three-man team contest at 45 targets, 15 each—

First team—	
Smith.....	14
Miner.....	14
Walsrode..	14
Total ..	42
Second team—	
Wood.....	12
Cady.....	12
Cox ..	11
Total...	35
Third team—	
A. Reid.....	12
Burr.....	13
Clark... ..	13
Total..	38
Fourth team—	
T. Reid.	12
Wear.	12
Swift...	11
Total..	35

* * *

Woodstock Gun Club.

The Oxford county championship gun club shoot was held September 21st at the fair grounds at Woodstock, Ont. Although there was quite a strong wind, the shooting was the best of the season. The conditions were ten live birds and twenty blue rocks, the total to count. Joe Thompson carried off the palm by making a score of 29 out of a possible 30. Mat. Virtue made 28, and General Grant 27. The shoot was a sweepstake for \$15 and was the first of a series for a Virtue Special bicycle donated by Mat. Virtue. The conditions for the rest of the matches will be the same as yesterday, and any member wishing to contest for the wheel must challenge yesterday's champion and put up \$10 to cover all expenses for birds, etc., and must give one week's notice. All shooters will have the same chance, as it is a handicap series.

Luckwell and Longmore were shooting only for practice. The following is the score:—

10 live birds—Thompson 10; Virtue 10; Grant 9.
20 blue rocks—Thompson 19, Virtue 18, Grant 18, Luckwell 15, Longmore 14.

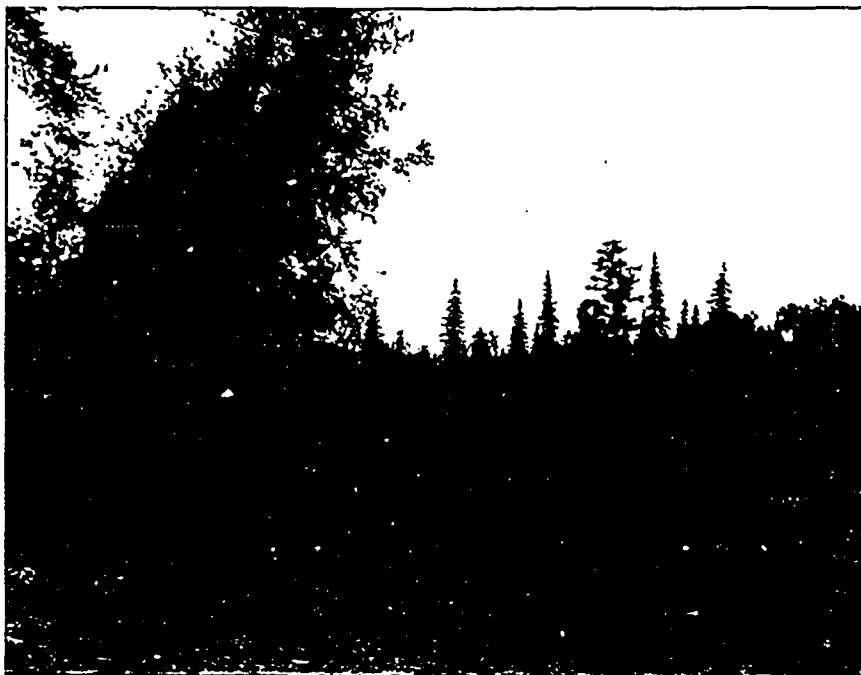
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A Galt (Ont.) Gun Club.

A large and enthusiastic meeting of shooters was held at the Market Hotel, Galt, Ont., on September 24th, and organized themselves into what will be

Crosby, McMurchy, Budd and Du Bray, being competitors.

Mr. Bates, has, within a year, won three international live bird events, viz: The Gilman & Barnes medal twice and the Grand American Handicap at New York last spring, besides many creditable local victories, a record of which any one might well be proud. We have much pleasure in congratulating him on his splendid success.



Third Portage on Montreal River en route to Lake Temagaming.

known as the Newlands Trap-shooting and Game Protective Association. The following staff of officers were elected:—
Hon. President—A. G. Gourlay.
President—R. Patrick, jr.
Vice-President—A. B. Smith.
Secretary-Treasurer—Andrew Newlands.
Field Captain—Josh Wayner, Hespeler.
Managing Committee—E. Bowman, Hespeler; H. D. Monachie, R. J. Dracey, and A. W. Thomson.

H. D. Bates Champion.

Mr. H. D. Bates, Ridgetown, Ont., again demonstrated that he is one of the best pigeon shots on this continent, by winning a second time the Gilman & Barnes international live bird medal, from the crack shots of Canada and the United States, at Jack Parker's shoot, Detroit, Mich., on September 14th, with a score of 25 straight. Bates was in warm company, such crack American shots as Heikes,

Harrow Shoot.

Harrow (Oont.) Gun Club held their annual blue rock shoot September 21st. The principal contests were for high average and for the Auld Cup, the latter open to Harrow shooters, and required to be won three times to become the absolute property of any shooter. High average out of 80 shot at, were J. T. Miner, Kingsville, 68; Cox, Detroit, 67 and Smith, Kingsville, 61. Oscar Pastorius of the Harrow club won the Auld Cup with 16 out of 20, his closest competitor being Kenneth Ferris, who scored 15.

* * *

Among the Canadian shooters who attended Parker's shoot at Detroit, last month and gave a good account of themselves were J. T. Miner, Kingsville, A. W. and T. Reid, Walkerville, and Montgomery, Summerhays and Westbrood, Brantford.



"These are some of the things you can do, and thereby learn how you have wasted your previous life."—Frederic Irland.

Canada and the Camera.

CANADA, probably more than any country on the face of the earth, owes a debt of gratitude to the camera. Were it not for the development of photography along popular lines, the annual rushes of sportsmen to this wonderland of nature would be small in comparison to its present proportions. At least two-thirds of the sportsmen who come here from the States and the Old Country bring cameras with them, varying from those of the small and cheap varieties to the largest and most expensive instruments on the markets.

These camera enthusiasts are doing much to open up new resorts in what has been properly named God's country. They are not satisfied with snapping Niagara Falls and Lachine Rapids and other similar civilized spots, but they turn their faces from the settled parts and seek out solemn mountain fastnesses, that have never echoed the click of the camera shutter. They face hardship and danger for the sake of securing a photogram of some particularly inspiring scene, and the result is that others are daily being induced to desert the beaten paths of travel to turn over more leaves of the great book of nature.

But why leave all this for outsiders to do? Surely every Canadian kodaker can help to advertise his country. To quote from the December, '99, number of Rod and Gun's photographic department: "O, amateur, amateur, why waste your good plates and time lying around Newport and Long Branch, taking snapshots at the summer-fools who wear red coats, when you might be out tramping through the bush with a chum and a dog, or canoeing down the Ottawa or the St. Lawrence, and at the same time adding to your stock of photograms, pictures that would not only interest yourself and your friends for the next year, but, sent to your acquaintances across the border and in other countries, would show them that Canada is far more than the 'Lady of the Snows,' and would bring them over here next year armed with cameras and plates galore to take back impressions, more vivid by far, than Kipling could ever give them."

Flashlight Portraiture.

Portraits can be made at night by flashlight, that are fully the equal of portraits made in daylight, but the flashlight portraits are much harder to get. One reason for this is the tendency of flashlight powders to throw deep and heavy shadows, which unless overcome, will totally spoil the picture. Profile portraits are much easier to get by flashlight, than full face or three-quarter face portraits. The cause of this is that if the subject looks anywhere near directly at the flashlight, the eyes will have an unnatural stare that will make the negative worthless. Profile exposures lend themselves particularly well to flashlight work. I saw a series of profiles a short time ago that I could not believe were flashlights until positively assured that they were.

The two main points in flashlight portraiture, according to my idea, are the moderation of the shadow and the proper exposure, the importance of the latter going, of course, without saying. Where the subject is seated with face three-quarters to the light, the shadows, which will be certain to appear if one of these devices is not used, may be lightened by any of three ways. A good way is to place the sitter so that a gas light will light the off side of the face. This will relieve the shadow very effectively, but it may be found necessary to give a few seconds exposure with the light lit before the flash is exploded. If the negative were developed at this stage, that is, before the flash were made, the result would be a negative with one side of the face and figure faintly exposed and the balance, the side on which the flash is to be set off, clear glass. This first exposure will lighten the shadow that would be cast were the flashlight the only exposure. It is perhaps unnecessary to state that the subject should not move until the entire exposure is complete. The gaslight need not be extinguished while the flash is being made, but the camera should be so placed as not to include it in the picture. A double thickness of cheese cloth should be placed between the subject and the flash, far enough away from the powder so as not to take fire.

That is one way of lightening the shadows, and probably the easiest and most

effective way. Another way is to use a reflecting screen. This should be placed exactly as if you were taking a daylight portrait and wished to reflect some window light upon the off side of the face. Its object, of course, is to catch some of the flashlight and throw it back again upon the dark side of the subject. Still another way of relieving the shadows is by using two or more flashlights. Professional photographers who work much with flashlight frequently use this method, which is rather too elaborate for the average amateur to attempt. It comprehends, say a flash set off on each side of the subject, one of course lighter than the other, so that one side of the face will be in partial shadow, and neither flat, being entirely unshadowed, or crude by being over-developed on one side and clear glass on the other. These flashes, and there are often more than two, must be exploded simultaneously, of course, and as I said the amateur can probably get equally good results from the simpler of the methods suggested.

Now, regarding the relative positions of sitter, camera and flash. A very good position is to place the subject three-quarter face to the camera. The flash should not be directly at the back of the camera, for that would produce staring eyes and flatness of face. Place the flashlight apparatus two or three feet above the camera, and about the same distance to one side. If the sitter is looking to the right of the camera the flashlight should be placed on the left; in other words away from the sitter's eyes. This will give you a face with full exposure on one side, but rather heavy shadow on the other. The shadow can be lightened, however, by any of the methods I have suggested.

In making a profile photogram, the subject should be seated side of face to camera, and the flash should be placed in about the same position as before, two or three feet above the camera and say two feet to one side. Amateurs will probably understand that in taking profile the flash should be placed to the face side of the subject rather than the hair side, so in other words, that the flash will shine to an extent directly in the subject's face. Lightening the shadows is not so important a matter in profile as it is not so necessary to give the effect of contour as in full face or three-quarter face portraits.

A dark and rough background is the best for flashlight portraiture because the dark fabric prevents the shadows thrown by the subject from being so noticeable and its rough surface absorbs the light. The subject should be placed from three to four feet from the background. Regarding the shadow on the background, care must be taken to lighten this. If the background is light and the subject is placed too close to it, the figure will cast a very vigorous shadow that is often a portrait in silhouette. Such negatives are worthless and

should not even be printed. Some shadow on the background is not at all objectionable, particularly in profile portraits, because the holding of the flashlight high above the head throws the shadow low down and thus prevents it from interfering with or obscuring the real head in the portrait. Where the three-quarter face is taken, however, there should be no sharp shadow, and this can be prevented both by increasing the distance between the subject and the background, and by lightening the shadows by the methods above described. The quantity of flash-powder means the exposure and as all powders are more or less different that will have to be judged by experience. The size of the room, color of the draperies and wall paper, the distance of the flash from the subject, are the chief points to think of in estimating the amount of flash to use. There is one thing assured, it is much easier to under expose than ever expose a flashlight. I have very seldom seen a flashlight negative that was over-exposed. Use plenty of flash powder, therefore, and be careful not to over-develop.—Will M. Ruckert, in the *Young Photographer*.

Relating to the Lines of the Landscape.

There is nothing more difficult than to explain in cold words how the "spiritual" of a drawing has been evolved, or of what it consists. Technique is a readily definable quality, easy of dissection and explanation; but touch upon the feeling—the soul—of a drawing, and the difficulty of writing about it is immediately felt. Indeed, if it were not for the fact that our photograms themselves can be reproduced in printers' ink, the task would be almost hopeless.

To those accustomed to photograph nature just as they find her, the idea that the artist may be able to treat the main lines of his composition enough to bring about a complete transformation may seem to be almost verging on absurdity. It is a fact, however, that by a careful treatment it is often possible to turn what were in reality patchy masses of light into effective lines, and still oftener is it possible to come across spots that will only yield picturesque results when this whole idea is well thought out beforehand and the principal lines of the picture carefully arranged accordingly.

In looking at a picture that has been well arranged, the necessity is shown of centering the lines, not into space, but upon the illustrative point, in order that the attention may not be distracted from that point; and further, it can be seen how near it is possible to go to parallel lines in a composition. How many of the masses are killed, and how repetition adds to the force, makes the motive of the work apparent at once.

But to commence at the very root of the principles at the bottom of picture-making, let us know something about the outer edge or shape of our productions. As a rule, we make our pictures angular in outline because that shape affords the best contrast with almost everything that we can find out-of-doors, excepting possibly the only straight line in Nature—the horizon across water. From the rest we get curves of all sorts, and these curves all make contrasts more or less agreeable with our margin. Other contrasts are produced by the arrangement of lines and masses, but when we speak of composition, we mean the arrangement and mutual relations of these, so that to say this and nothing more would finish the whole matter and would be attempting rather too much at one blow.

The horizon should be placed almost any-

middle line should be avoided at all hazards.

As an illustration of this, look at the accompanying photogram, "Just as the Sun Went Down." The subject of the picture is the sunset, and though the tow-barge and schooner in the foreground are real aids to the picturesqueness, they are subordinated to the principal point of interest by being placed on the side of the horizon which is narrowest. It might be contended that the boats themselves ought to have been the subject, and very good arguments given to back up such a stand. The first fact, however, that would be noted by a casual observer is the sunset, and though from it his eye would naturally wander to the boats, they would only be objects of secondary interest to him. This is merely a proof of that often-stated fact, that the leading point of the photogram should



"Just as the Sun Went Down"

Photo by W. A. Couse

where, according to the relative interest of the sky and foreground. Ordinarily, in actual vision, the horizon comes near the middle of the view, unless we are looking downward, as when admiring flowers, or on some hillside, gazing on the wide prospect spread at our feet. The less frequent upward view, where the division between sky and earth comes below the middle of the picture, gives a grand effect, especially on the open sea or in harbor, or on the marshes. In such cases the cloudscape, with its clustering banks of rolling vapor, piled mass upon mass, possesses a keener interest than the comparative tameness of the earth or the calm of the ocean. To sum up, however, the interest is never equal in sky and foreground and the exact

stand out enough to subordinate all other objects and give to them the appearance of being merely there to suggest locality.

Now, to come back to the original question, the shape of the picture, it may be noted that in this case it is about two and a half times as long as it is wide, and with this fact it may be taken into consideration that all the principal lines, both in the sky and foreground, are parallel, or nearly so, with the long edges. The opposite shore, the high lights in the clouds, the boats, and even the lines in the water, all run from end to end of the picture, and it is to these facts that the impression of length is owing. Had the width of the picture been increased, the general effectiveness would have decreased correspondingly, and

from such a result it would be extremely unwise to take one bit of interest. Though there are other skies that would have done, we have in this case gone slightly to extremes and chosen one that harmonizes completely with the landscape. Had we put in a sky of curves, much of the force of the lines in the land and foreground would have been lost. The subject of clouds, however, will be treated more fully in a special article.

Now, in composing a picture on the ground-glass, let the first object be to decide which lines are desirable and which would be better cut out, and then by moving our position to the right or left it is generally possible to considerably modify the foreground. The less complication in the shape of points or lines of light, the less distraction from the general aim of the picture there will be. This idea is well carried out in the illustration. Often by foreshortening the view until nothing but two or three of the principal lines of the foreground are left we gain that decisive appearance that gives point to the scene we are depicting. But in emptying this we have robbed our landscape of some of its beauties and our lines end in producing in themselves nothing except to draw the eye whither they go, so that to finish the picture we need for a culminating point some object that will give it added interest. Knowing our place well, we can choose whether to use life, aerial effect, or what not, to add that one touch of interest.

Take, for instance, a piece of meadow land that has been overflowed by rains, so that little rippling streams of water wind their way through tiny self-made channels between the grassy hillocks. Here a foreshortening will turn all but the widest of these rivulets into effective lines for the foreground, and by a little thought they can be made to take strangely parallel and effective courses that will blend harmoniously. At the same time we lost many of the minor rivulets, so that the larger ones that we keep are given the air of decision of which we have spoken.

We have already stated how the lines should have the effect of drawing the eye to some one point, and that that should be the point of interest in the picture can hardly be denied. Now, in placing this point of interest, our object is not to irritate the senses of the onlooker by first carrying him along our streams and then starting him afresh at this point, which may well be a herd of cattle or some other object that is in keeping with the rest of the picture. Our picture is to afford pleasure, not pain. To be able to point to a run of lines, and, having exhausted interest in them, to start again on the cattle, in a picture, is to kill the creation at once. The object is to culminate interest in the cattle standing knee-deep in the water, black against the sky and distance, and with this

idea we can but place them on the final point of the lines. It is scarcely necessary to point out how much more effective an object is which breaks the horizon, than one which is sunk below it.

It is to the final point of the lines we invariably run, and from there that we start to leave the picture. There are many other places that we might have placed the cattle, but it is only here that the full effect is shown. There can only be one point in any picture that really is a picture where the interest can culminate. The stronger the opposing minor points, the more distracted will be the eye and the less effective and strong will be the chief object of the photogram. The work will also show less motive, and, should minor details be too strongly emphasized, there can be no possibility of the photogram ever rising beyond the level of a mere record of facts.

What is wanted is education, self-education of the eye, the artistic talent, the power to see the picture in the material before you; the form, the shape, the limitations of the subject, till by intuition one seizes the vantage point that gives the best arrangement that can possibly be had.

In the March, 1900, number of the Photo-American there appeared an illustration entitled, "Towing the Schooner," by Fred. G. Pawkes, that perhaps illustrates the arrangement of lines, as last spoken of, better than the accompanying illustration, and the earnest student will do well to turn it up and study it out. In it, sky, foreground and distance are so clearly shown and the distance so marked by the decrease in the width of the lines, as to make it as nearly a perfect picture of the class as could be secured.—H. McBean Johnstone, in the Photo-American.

A World's Record in Photography.

During the session of the Ohio and Michigan Photographers' Association at Put-in-Bay, on Aug. 21st last, a wonderful photographic record was made, demonstrating the practicability of using artificial light in this new art-science. A negative and finished print was made at ten o'clock at night, the experiment being conducted by C. H. Smith and David Rosser, of Pittsburgh. The negative was made with four seconds exposure by acetylene gas. The print was made with artificial light also. The total time consumed in the operation beginning with the exposure and ending with the finished photogram mounted on a card was eight minutes and twenty-four seconds. This is the world's record.

The Quality of the Negative.

There is a vast difference of opinion as to what a first-class negative consists of, but all printers will agree that the best negatives are

the ones that give the best result under the printing light. A negative should be clean, clear, soft and brilliant, and above all, have pluck and roundness. Many negatives are spoiled in developing, by not being developed far enough, many thinking a half-developed negative is meant when a soft negative is spoken of. A negative should always be developed far enough to have body and strength enough to hold the roundness and brilliancy under the printing light. A negative developed so thin that the arch of the high light has not strength enough to hold up under the printing light will never make anything but a flat, disappointing print, on any kind of paper. The utility of the negative to do the work required of it, that is to make prints (not to look at), depends largely on the developing agent used in making it. We have often been given beautiful negatives to look at, but were much disappointed in the prints of the same. The beautiful little catchy lights on drapery, seen in the negative, were not in the print, but everything seemed flat and grayed down. We find negatives made with some developing agents do not have the quality to stand up under the printing light that others do. The high lights are not opaque, but the film seems porous and allows the light to filter through the negative and gray down the delicate catchy points of light and half tones, and the result is a disappointment in the finished photogram. The best negatives we have found to do the work have been developed with Pyro. There may be others just as good, but we have never found them. In making a negative, the ability of that negative to make prints should be the question. For it is not the negative you sell your customers, but the prints from the same. The negative is only the means to an end, and if it does not accomplish that end it is not desirable.

A Table of Comparative Exposure.

The following table, compiled by Dr. J. A. Scott, shows the comparative value of day light (under like conditions) for photographic purposes at different hours of the day and seasons of the year.

Hour of Day A.M. P.M.	Jun	May	Apr	Mar	Feb	Jan	Dec
	July	Aug	Sept	Oct	Nov		
12	1	1	1½	1½	2	3½	4
11	1	1	1½	1½	2½	4	5
10	2	1	1½	1½	3	5	6
9	3	1	1½	2	4	*12	*1½
8	4	1½	2	3	*10		
7	5	2	3	*6			
6	6	2½	*6				
5	7	*5	*				
4	8	*12					

Example.—If it is necessary to give 12 second exposure in June, 12 M., under like conditions in December, 12 M., it will require 2 seconds' exposure.

*The accuracy of these figures would be affected by yellow sunset.

Paradoxical as it may seem, flash-light photograms are much better if made in the daytime than at night. Daylight softens the shadows. In making a flash exposure, either day or night, have all the other light you can get.

Correspondence.

Correspondence should be addressed to Box 651, Sarnia, Ont.

John A. Ross, Simcoe.—Diaphragm should only be used to get a sharp picture all over the plate. The largest stop that will effect this is the right one to use. A smaller one will only give a monotonous photogram without any advantage.

Chas. Anderson, Cornwall.—(1) In making up a hypo bath by hydrometer test be sure your hydrometer is accurate. (2) Yes. (3) Write to the American Aristotype Company, of James town, N.Y., and ask them to send you an "Aristo manual." (4) By all means.

C. R.—Keep your plates in a cold, dry place. When you open a box of plates do not leave it where the sun can reach it. A dark room is generally the dark to keep plates in.

Temperature.—During the winter keep your developer at a temperature of say 70 deg. to 75 deg.

Windsor, Ont.—Your photogram is hardly worth copy-righting. To be perfectly candid with you, far too much work is copy-righted—work which no one would bother copying.

Fading Negatives.—Always leave the negative in the fixing bath for five minutes after all whiteness has disappeared to insure permanency.

Jerry Morrison.—You can reduce with the following:
 Perchloride of Iron 30 gr.
 Citric acid 60 gr.
 Water 16 oz.

St. Clair.—(1) To dry a negative quickly, after it is well washed immerse it in alcohol for five minutes and then without rinsing it up to dry. (2) Yes.

"Photogram."—Your question has been answered twice already.

Ono Jones.—Rodinal is a good developer for amateurs. One part rodinal to forty parts water.

Flash-light.—The best and cheapest flash is made with a small blow lamp. Use pure magnesium. Make it in day time if possible.

Sportsman.—It was very foolish of you to make a snapshot on a cloudy day. You must learn to keep your head and not get excited.

A Bet on it.—No, you lose; a thin negative is not necessarily flat. Flatness is when everything about a negative looks weak. It is usually due to over-timing. It is sometimes due to chemical fog.

Importation of Wild Animals.

U. S. Department of Agriculture, Office of the Secretary, Washington, D.C., Sept. 13.—Under the authority vested in the Secretary of Agriculture by Section 2 of the Act of Congress approved May 25, 1900, entitled, "An act to enlarge the powers of the Department of Agriculture, prohibit the transportation by interstate commerce of game killed in violation of local laws, and for other purposes," the list of species of live animals and birds which

the Biological Survey, issued July 13, 1900, canaries, parrots and domesticated birds such as chicken, ducks, geese, guinea fowl, peafowl and pigeons are subject to entry without permits. But with the exception of these species and those mentioned above, special permits from the Department of Agriculture will be required for all live animals and birds imported from abroad, and such permits must be presented to the collector of customs at the port of entry prior to delivery of the property. JAMES WILSON, Secy.

"The sportsman can find in Nelson unlimited occupation. The fishing in the Kootenay Lake and River is unequalled by any in Canada. The wooded mountains surrounding the lake abound with deer and grouse, while in the distant snow-clad hills, mountain sheep, wild goat and bear can be obtained. Excellent facilities are



Outlet of Lac Tremblant

may be imported into the United States without permits is extended as herein after indicated. On and after Oct. 1, 1900, and until further notice, permits will not be required for the following mammals, birds and reptiles, commonly imported for purposes of exhibition:

Mammals.—Anteaters, armadillos, bears, chimpanzees, elephants, hippopotamuses, hyenas, jaguars, kangaroos, leopards, lions, lynxes, manatees, monkeys, ocelots, orang-outangs, panthers, racoons, rhinoceroses, sea lions, seals, sloths, tapirs, tigers or wildcats.

Birds.—Swans, wild doves or wild pigeons of any kind.

Reptiles.—Alligators, lizards, snakes, tortoises, or other reptiles.

Under the provisions of Section 2 of said act (as stated in Circular No. 29 of

afforded for lawn tennis, cricket, baseball and lacrosse, while boating and a three-mile bicycle track make up the complement of amusements for those who care not for the use of rod or gun.

"For the sportsman of limited means, who desires a holiday or a home where, amidst every modern comfort and a cultivated society, he can indulge freely in his inclinations, there is an Arcadia."

Russia, by reason of its immense extent and comparatively small population, offers a magnificent variety of sport, says a writer in Pearson's Magazine. The woods of Gatchina, owing to their vicinity to St. Petersburg, are, however, usually the scene of the biggest battles given by the Emperor. These estates are surrounded by a high wall, and are further separated from the road outside by a ditch. Drawbridges guarded by picked Cossacks give

entrance to this Imperial residence. The woods about it, though often heavily shot, are crowded with game.

But perhaps the Tsar prefers the harder and more toilsome days spent in the forests of Bialowiega, not far from Minsk, to the south of Moscow. Here an early start is the order of the day, and by eight o'clock the whole party have left the Castle behind them. This country sea was built some years ago by the Emperor Alexander III. It is the rule on such occasions to breakfast in the forest, and at these breakfasts the Empress is often present, seated on the Emperor's right. This is no new fashion, for the Dowager Empress used to accompany the late Tsar, taking her children and attendants with her.

Game abounds in these royal preserves of Bialowiega, the list including stags, elk, wild boars, and, rarest of all, the bison. No one, except the Tsar and his guests, ever penetrates these ancient forests, where a tree is never cut.

Another reason is the fear that the bison (the bison of Europe, the aurochs, in fact) is in considerable danger of becoming extinct. With the exception of the Caucasian mountains, they are at the present day to be found nowhere else except in these forests, and here they are shot but once in three years. Last year a hundred were killed, the best having a fine head. This one was shot by the Emperor himself, and Gen. Richter brought down another fine specimen. None but bulls are shot—to fire at a cow is a crime much on a level with shooting a fox in a hunting country.

The stags in these woods are splendidly grown and very numerous. Four hundred were shot in a few days last year.

Since the Tsar has broached the idea of disarmament, it is said that his views on sport have undergone a considerable modification.

North-West Forestry.

(London Free Press.)

Time was when a large part of Manitoba was covered with forests, as were also immense tracts of Eastern Assinboia. Places where now there are no trees, and where it is said that trees will not grow, forty years ago were covered with forests. The fires that swept the country clear of timber, owing their origin sometimes to lightning, sometimes to the carelessness of man, did their work gradually. In some places they were checked by ponds and streams. In some they ate into the forest until they were overcome for the time by the moisture of the trees. In illustration of this Prof. Macoun, at the recent meeting at Ottawa of the Canadian Forestry Association, cited the case of the Touchwood Hills. These were not really hills, but slight elevations, covered with

trees, which, protected by a series of ponds, had the appearance of a height they did not possess. Moose Mountain was similarly situated, but its protecting ponds dried up, the fires went in, and it lost its trees and its prominence. Trees, Prof. Macoun holds, will grow, except in the alkali lands, wherever there is moisture, and, establishing themselves, they retain the moisture they live on. A tree turns out thousands of leaves and has great roots far down in the ground, and the sun is pumping water out of the tree all the day long. It is pumping water out of the depths of the soil, and that water is passing into the atmosphere. The cutting out of the forest means that the rainfall will be carried off the soil too quickly, and thus return to the atmosphere will cease. The atmospheric currents are not interfered with, but are only prevented from taking the humidity out of the soil through the agency of trees. "Thus," concludes Prof. Macoun, "we have the climate suited to the growing of cereals. The humidity received into the air compensates for the want of it in the climate." This explanation shows why trees are good for the country in which they are found.

It is proposed to erect a memorial window to Izaak Walton in the Winchester Cathedral at Winchester, England. A prospectus of this memorial says:

"The remains of Izaak Walton rest in one of the side chapels of the south transept in Winchester Cathedral. His grave is covered by a plain flat stone, bearing an epitaph in verse composed by his brother-in-law and friend, Thomas Ken, Canon of Winchester, afterwards Bishop of Bath and Wells. The chapel is lighted by a window of considerable size, with beautiful tracery in the decorated style which prevailed in the end of the 13th and beginning of the 14th century. It is proposed to fill this window with stained glass in memory of the good man and delightful writer who is interred immediately below. The cost of the window will be about £400, and the work will be entrusted to the eminent artist, C. E. Kempe, who has already designed five of the existing windows in the cathedral."

"I have often seen the Canadian wilderness. I have worked my way by canoe and portage in warm weather. I have journeyed by snowshoe in winter and dragged my own toboggan, and it is my firm belief, Caspar Whitney and Fred-eric Remington to the contrary notwithstanding, that there is only one climate in the world more enjoyable than the Canadian summer, and that is the Canadian winter. The discomforts of that wilderness are mostly imaginary. You can put on a pair of snowshoes and travel

all day in them the very first time you try, and not be nearly as tired at night as you would be after a ten-mile walk on the pavements of a city. You feel the cold a great deal more on Broadway, Island of Manhattan, than you do in the deep woods of northern New Brunswick."—Frederic Inland in Scribner's Magazine, January, 1900.

We quote the following from the report of Mr. Wm. Pearce, of Calgary, in the Annual Report of the Department of the Interior:—

So far as the south west portion of the Territories is concerned, when the foot hills and some portions of the stream bottoms (comparatively small ones) are taken out, the remainder is perfectly barren of trees, bush or shrubs. The introduction of irrigation will, however, greatly aid in stimulating the results in tree and shrub planting so greatly to be desired. Further, throughout the country generally, as settlers become better situated, they will naturally desire to make their homes comfortable and beautiful, and tree and shrub growing will be more and more attempted. It is very encouraging to notice what is being done with fair success in that regard in many of the towns and villages in the Territories, and also by many of the farmers and ranchers. A few years ago not only was the same not attempted, but success was scouted. Those who tried anything of the kind were invariably informed by "old-timers" that complete failure was inevitable; "they had seen the same thoroughly tested." It is probable our experience will be similar to that in Greeley Colony, Colorado, an irrigated settlement, namely, that it is no use to try the more delicate trees at first; but only when a few good wind-breakers are produced by the native trees, chiefly cottonwoods, then the more delicate ones can be readily grown. In addition to the many varieties of the poplar family, our mountain spruce seems to grow well, fairly rapidly, and makes a nice tree, and gives a very agreeable color to the landscape when the deciduous trees are bare, or the ground covered with snow. This brings up a point which is worthy of serious consideration, namely, whether it would not be well that small nurseries for the growth of trees suitable for the country should not be established in many places, thereby providing a cheap and possibly a free supply for those who will honestly and strenuously make an attempt at growing the same. Experience would so far seem to emphasize pointedly the fact that the shorter the distance the trees are moved by transplanting and the less the change in situation, the larger the percentage of favorable results.

Bush fires fanned by the high winds caused considerable destruction in the vicinity of Woodstock during the month of September. The timber destroyed was not of much value, but several farms were threatened with destruction and the reckoning up of the profit and loss account in connection with it leaves no ground for considering this industry one that should be encouraged or even treated with indifference. The fires started from some stumps that were being cleared off by burning.

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A Trip to Trout Lake.

At 8.30 on Thursday morning, May 24 last, Throop, Hayes, Deslaurier and I left by train, arriving at Buckingham station at 9.20, where we found our man waiting for us with a good team, and after a very pleasant drive of three miles we reached the steamer Agnes ready to start up the River L'Éveure with a party of merry picnickers on board going to the High Falls to spend the birthday of Her Gracious Majesty. Our genial friend, Capt. A. McNaughton, was also on board, as well as the obliging captain of the steamer, Capt. Bothwell. We made good time, and arrived at our destination at 12.30, where we found Isaac and his boy waiting for us with the horse and jumper. It did not take us long to get the things snugly packed, and by 1.30 we were at the lake. It would surprise many people to see the places over which Isaac's horse took our load. He actually walked along a single log, and went up and down places where it is difficult footing for a man to pass.

We found the boats in good shape, and by two o'clock we were at the point, where tents were pitched in a lovely spot close to a stream of clear, running water. After partaking of a light lunch we got our rods and tackle together and started out for the afternoon's fishing. Throop and I going in one boat, and Hayes and Deslaurier in the other. We did not anchor, but kept moving about, one paddling and the other casting. By this means we of course covered a very large extent of water, and this increased the chances of securing what fish might be on the lookout for flies.

We rose most of them close in under the bushes and dead trees near the shore. The day was, however, very bright, not a cloud in the sky, and for that reason doubtless they did not rise very well. However, Throop and I managed to land twenty-five nice trout between us. We returned to camp about 8 p.m., and found that Deslaurier and Hayes had some nice fish, and reported having lost some very large ones. They did not move very far from camp, and fished with both bait and flies. Throop and I used the fly only. We found the most killing to be the grizzly-king, Montreal, Alexander and Zulu, and they seemed to show a marked

preference for the first-named. The largest trout I caught on the trip weighed 2 1/2 pounds, and took a fly I made according to no particular pattern, namely, body dirt brown seal's fur; hackle, dark brown; Palmer wings, and tail well-marked pin-tail. This fly somewhat resembles "Dr. Shore's fancy," and is a very tempting-looking fly.

During the evening we heard and afterward saw an immense trout jump out of the water three or four times. From appearances and the noise it made we estimated its weight at from 6 to 8 pounds. We tried several flies over him, but he would not rise at them. This day was just as bright as the previous one, and the result much the same. We returned to camp about 8.30, and after a good meal sat around the fire chatting and smoking until about 11, when we turned in for the night somewhat tired after having been up since 3.30 in the morning and at work all day with the exception of about an hour, when we rested for lunch at noon. The black flies were very troublesome on the lake, but were fortunately not very plentiful near the camp. The mosquitoes did not bother us at all until daylight. It was a great relief to lie down in the tent at night and feel free from the black flies for a few hours. We had plenty of fly oils with us of various kinds, but found the tar oil the only thing to keep the flies from biting, even that required renewing frequently. Nesmuk's recipe is the best I have tried.

We were out bright and early the next morning, Saturday, and fished until about ten o'clock, when we returned to camp and packed up, after partaking of a sumptuous meal. We then left for the end of the portage, where we found Isaac awaiting us (I never knew him to fail to be on time), and it did not take us long to get down to the river, where we divided the fish and packed them carefully in our baskets with plenty of ice and boughs. The steamer arrived about 4, and we reached Buckingham at 5.30. We drove at once to the railway station, and had tea at a nice, clean, comfortable hotel nearby, after which we enjoyed a pleasant chat over our trip until the train arrived at 9.20. We reached home at 10.15, and all pronounced it, although short, one of the most enjoyable trips we had ever had. Not a single thing went wrong or was forgotten. It is not often that everything goes right on such a trip. A slight accident is liable to happen, or something to be forgotten or broken, which might cause considerable inconvenience when one is away from civilization; but everything went well in our case.

The fine weather of course prevented us making a large catch, but we did not go for the purpose of making a haul, and we were all perfectly satisfied with what

sport we had. Our total catch was sixty trout of about one pound average weight—quite sufficient to make the sport interesting.

With regard to flies we found that the proper size of hook was No. 5 (old seals), and that the grizzly-king dressed with a very bushy body of rather dark green seal's fur was the most effective, as before mentioned.—Walter Greaves in Forest and Stream.

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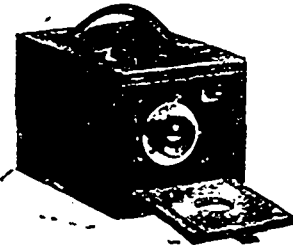
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