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No. 10. Vol 1. Montreal, Wednesday, April 1, 1891.


## A STIRRING CAMP FIRE STORY.



HAD JUST STIRRED THE FIRE
(1) CHAS. H. IUGRIN, II. A., DEl'ARIMINI Of AGRICUIILRE, FREMHKICIUN, II IHOR of
"NEW HKU'SSWICK, ITS ML. OOLRLES AND ADlANrM.IS," 1:It , I.TC.

One of the gurdes had juat starred the fire and thronn upun it half a duren dry bich, wheh the flamen sereed at ume. while at , hower of aparks , hot upward. Jol a lire.alis of ar was stirnng, not a d luod wher wred the shs, the sombre slope of Nollish seemed almont to reach the stars, and the eataract, from whith the momitun took its name, gave vut a hourne murmur.

Our tents were temantle. It was tow fine a night tu lic under cuerer, while a sirem sward mited us to ret ypun it, and, wrapped mour blanhit. we lay before the fire matt tudes more or ben pisture ribu. and all comfortable: Nu ons had spoken for wome these. when the Majur, whe "in murh the nenoor of cur liorice party, sat up, and. hawili: filled his pipe, satd
"Nun, hoys, Ill tell you that stors
"It halpiened when I was a luy, you himu. and that was before must of you were burn," he began. " IIs father was a Hudoon, Bay (umbam officer, and in charge of a firt, as they call them, up, on the North Saskatchewan. That's a name you boys are familiar with;
but at the time I speak of not one person in a thousand had ever heard it. I spent two winters with father, and had a rough but capital time. I went on one shooting or trapping excursinis after another, and became quite an expert for a youngster. About the middle of my second December at the fort, father received letters from headquarters which made it necessary to send a messenger to the next post, nearly a hundred miles to the south-west. I no sooner heard of this than I wanted to go. Father objected."
"It's a long tramp," he said, "and you will not likely have any sport either going or coming. You had better not think of it, and I will send Jean Baptiste and François," mentioning two of our most trusted voyageurs.
"I was in no mood to accept his advice, having been inactive for a month, and not secing any chance to have an outing very soon. There was another reason that influenced me, and that was that the factor in charge of the fort in question, a Montreal man, named Armitage, had taken the somewhat unusual course of bringing his two daughters out with him, both of whom were younger than I.
" You need not think I was in love with the girls, for I was not, and this is not a love story. They were splendid girls, though. Both are married now; and if I am yet a bachelor that has nothing whatever to do with it.
"I think my father more than nalf suspected why I was so eager to go, for after his first formal protest, he raised no further objection."
"Who will go with you?" he asked:
"Big Joe,". I answered, referring to my Indian guide, philosopher, and friend, companion of all my excursions by land or water.
"Of course, but who else?"
"Oh, he'll do. We'll take his dog team, and go through in fine style."
the programme, as represented to father; but I meant to make the outward journcy in as near three days as possible, and to allow myself not more than four to come home in, and that would leave me six days for the society of the charming Misses Armitage.
"The snow-shoeing was excellent, and Joe and I tramped along, side by side, the dogs following with the sledge containing our camping kit and provisions. We were about an hour out when I imparted my plan to my companion.
"Joe!" I said, "can we tramp to Fort Armitage in three days?"
"Yes, can. Mebbe if not storm," was the guarded answer.
"Well, let's do it."
" What for so fast?" quericd Joe.
"Oh, nothing, only what's the use of loafing along the road."
"Mebbe you wantum see Armitage pretty white squaw ?"
" Joe's face was very solemn as he offered this suggestion, but I knew him well enough to understand that the remark was to be considered a joke of the first magnitude, and I laughed accordingly. Joe's one weakness was that most uncommon trait of character in an Indian -a belief that he could make a joke occasionally, and nothing put him in better humor than to have his efforts in that direction acknowledged.:, So pleased was he with my reception of his remark, that he said-
"Frank, you get in sledge. Joe run ahead of dogs to Armitage in two day mebbe."
"I thanked him and told him I was not in so great a hurry as that, and we dropped the subject. Nevertheless, we made thirty-five miles that day, camping at night in a little thicket of firs. The next day passed without any adventure, and we made progress fully equal to the


1 KNEW WHAT was COMING.
"You had better take either Jean Baptiste or Francois," suggested my father; but when I urgec that Joe would think this a reflection on his merits, he added-
"Of course, you really don't need another man, except for company, and as you say, he would not be welcome company to Joe."
"We were off as soon as it was daylight next morning, the twelfth of December. We expected to make at least twenty miles a day, so that five days would be spent in going. A day's rest at the fort, would leave us seven days for the homeward journey, so we were reasonably sure of being back for our Christmas dinner. This was
first day's tramp. When we were snug in cimp at night, I said-
"This time to-morrow night we will be at Fort Armitage."
"Mebbe snow come," was the discouraging response.
"Nonsense," I said, "there is no sign of a storm."
"Joe made no reply, and we fell asleep, waking at daylight to find the snow falling steadily, though not heavily. The sight of it made me impatient to go on, though Joe advised me against leaving the camp, He insisted that it would snow harder before the day was out, and we could not see our way. I told him we had our compass, and he answered-


THE SNOWSHOFING; WAS EXCELLENT.


#### Abstract

"Compass no good when thick snow storm. Can't tellum holes and trees." "I knew he was right, but I was headstrong, and insisted that we should start as soon as we had breakfasted. Joe, having discharged his duty by his protest, interposed no further objertion, and we set out in the storm. "Fort Armitage was at the foot of a lake, ten miles


 long and from four to six miles wide. It was one of a group of lakes, connected by 'thoroughfares.' They were all nearly the same size. The land between them was high, except at their northern extremities, where there was a belt of swamp, so little elevated above the water that, when the snow was deep, it was next to impossible to tell where the water began and the swamp ended."We came to the northern extremity of Armitage Lake about one o'clock. Joc proposed a balt. He said he did not like to try to go down the lake with a storm sweeping across it. Boy like I was stubborn and boastful. I was not afraid of any storm that ever blew, I said.
"You not know what storm can be like," answered Joe, as he started on ahead of the dogs, with the compass in his hand, for we could not see the shore of the lake for the snow. During the day this had been our order of march. Joe first, then the dogs, while I brought up the rear. We had gone only a short distance out upon the lake, when Joe said-
"Sure thinkum better go back to trees."
" Nonsense," I answered. "Don't you see it's going to stop snowing."
"Better go back," he repeated, and so earnest was he that I was afraid to further oppose my opinion to his, and with much unwillingness agreed that we should retrace our steps. We had scarcely turned about when the snow stopped falling. I was ahout to remonstrate with Joe for what I thought was his ill-timed advice, when chancing to look to the north-east, the appearance of the clouds caught my attention. They had a strange
yellowish tinge, and were being driven along at tremendous speed.
"Rum," shouted Joe, as he set the example, the dogs following' him. 'Thoroughly alarmed, I set out at the top of my speed, casting anxious glances to the northenst. The yellowish tinge soon gave place to one of leaden grey, and this was spreading over the whole range of vision in that direction. Already the hills on the lake side were hidden, and they were less than three miles away, while we were almost a mile from shelter. I knew what was coming-one of those terrific storms of ice-dust they call blizzards nowadays. I had never seen one, but had heard them described.
" Joe looked around at me.
"Run, run!" he shouted, and quickened his own steps.
"I needed no urging. Only one thought now had a place in my mind-to reach the shelter of the trees before the storm struck us. Could we do it? It was more than doubtful. Nearer and nearer came the leaden clouds, and the wind was growing fiercer every moment. On we ran. Suddenly a bit of sleet struck my face, then another, then several at once. Then I was enveloped in a perfect cloud of ice-dust, to the impact of which I had to turn my back in spite of all I could do. The force of the wind was terrific, and the cloud of ice-dust so dense, that Joe and the dogs vanished from sight as completely as if the lake had opened and swallowed them. I shouted at the top of my voice, but knew it was hopeless to expect to be heard in the storm. Then I realized that I was to all intents and purposes absolutely alone. I was not sure in what direction Joe had disappeared, or where lay the shelter we had been seeking. The wind, shifting to every point of the compass, furnished no guide. The only thing I could do was to keep moving, and it was easier to go with the wind than any other way, so I changed my course as the wind shifted, intent only in keeping $m y$ feet and shielding my face from the ice-dust. I was too well clad to be afraid of freczing, so long as I could keep in motion.
"The fury of the storm lasted only a comparatively short time, but there set in a fall of fine snow, in such a dense cloud, that I do not suppose I could have distinguished an object ten feet from me. It was useless to think of reaching the shore except by the merest accident, and the only thing to do was to walk in as straight a line as possible. This would bring me to the shore at some point, and once among the trees, it would be possible to cxtemporize a shelter, and perhaps to find Joc. And so on I tramped. Darkness comes early in December, so far north, and when it set in the storm showed no sign of abating. Evidently I was in for a night of it. Then I began to wonder what had become of Joc, and at intervals would shout in the hope of being heard by him. Soon the last trace of daylight disappeared. I need rot try to tell you what the dreary hours were like before signs of dawn appeared. At first I walked rapidly, hoping by accident to reach the shore. Then I tried by slowly placing one snow-shoe ahead of the other, to advance in a near approach to a straight line. Then I grew afraid of getting too far away from my starting point, and tried to walk in a circle. It seems a wonder to me now how I kept up that endless tramping through the heavy snow, for I sank several inches at each step. Daylight came at length and my courage revived. For the first time in several hours I shouted for Joe, and was gratified beyond expression at receiving a faint reply. Hurrying in the direction whence it had come, I found myself confronted with a dense growth of fir trees. I shouted again. There was no answer: then again and still without a reply and I knew I had been deceived by
the echo of my own voice ; but not deceived altogether for it had led me to shelter.
"To get well within the forest was my first thought, and when I did so, to my extreme delight, I found a great many dead trees, and saw that the trunks of the living ones were shaggy with moss. To break off some of the dry boughs, whittle a few shavings, and with the help of the moss, and the matches, of which I had a good supply, to make a fire was my next step, and, tired though I was, the excitement restored my strength and courage. The sight of a fire, next to that of a human face, is the most gratifying thing imaginable when one is lost, and having cut a few green boughs to serve as a resting place, I knelt before the blaze, regardless of the snow falling around me.
"It required very little consideration to show me that my troubles were by no means over, though they did appear to vanish when the first flickering blaze arcse from the moss. There was no use in my thinking of starting out on another tramp while the storm continued, I must prepare a shelter of some kind, for it would be
for it and has the means of killing game; but one, who like myself, had nothing in the way of hunting gear except a jack knife, a fishing line and a few pieces of rablit wire, might starve to death for all that. There was the edible lichen, called by the Half.breeds "Tripe de la roche," but it was hopeless to look for this under four feet of snow if it grew in the neighborhood, of which there was no indication. When I had about abandoned all hope of being able to find anything I remembered that Jue had told me only the day before that the inner bark of the poplar would do for food, if you could get nothing else. There was every reason to suppose that poplar would be found higher on the ridge, and slipping my feet in my snow shoes I set out on the search.
"A half hour's tramp brought me to where there were poplars in abundance. Having cut out some of the pulpy inner bark and warmed it over my fire, I essayed to eat it ; but found it very unsatisfactory; I was not altogether discournged for on coming back from the poplar grove 1 had noticed the track of hares, and, without further delay, went out and set my snares. By


A CHANCE TO HOOK A FISH OR TWO.
next to impossible to keep awake, and to fall asleep before the fire with the snow falling meant never to open my eyes again. With my snowshoes I dug a hole in the snow, which was fully four feet deep, and in one end of it heaped up a few boughs, making a sort of roof over them with sticks and boughs. In the other end of the hole I built a small fire, and having crawled down into my rude comp, was soon so comfortable that I fell asleep. Fortunately the weather was not very cold, and on my awakening after a couple of hours, though the fire had gone out and my limbs were very stiff, I was able to get a blaze going again. But with returning warmth came hunger, I had had nothing to eat since noon the day before, and had had exercise enough to give me an appetite. The most minute search of my pockets revealed nothing edible : nor was there a living creature in sight. Then I went to the edge of the forest and tried to penetrate with my gaze the dense cloud of snow, but it was like looking out into a fog, and discouraged I went back to the fire.
"What should I do for something to eat? This was the all-absorbing question. Our northern forests furnish considerable varicty, if one knows where to look
nightfall one hare had rewarded my skill as a trapper, and one of its legs broiled made what seemed the sweetest meal I had ever tasted.
"As the snow continued to fall there was no use in thinking about leaving my camp, and so I devoted the rest of the afternoon to collecting dry wood for the fire and boughs to complete my shelter. The result of my labors was a place of refuge not to be despised, and my night's rest was as good as could be desired. Next morning I found a second hare in one of my snares, and when towards afternoon the snow began to cease falling, the outlook appeared quite bright. The storm ceased altogether at sunset : but the clouds continued heavy, so that not a star was to be seen. Nor had they cleared away when daylight came again, nevertheless the air was clear and I was able to make out what my surroundings were like.
"The place to which my steps had led me in the storm was near one extremity of a furest-bordered lake, ap parently ten or twelve miles long and five or six miles wide, and the conclusion naturally suggested itself that my wanderings had not taken me far from the point where I had lost sight of Joc, and that the expanse be-
fore me was ismitage Lake. The snow had been falling too thickly when we had reached the lake for me to see what it was like, but that before me tallied pretty well with Joe's description of the former.
"If this was Armitage Lake, where was Joe? To search for him was clearly my first duty. Returning to my camp I secured the remains of my last hare; but though I spent the whole day in tramping up and duwn not a sign of any living creature was to be seen, nor antthing that resembled the track which my Indian and his dogs would have nade. Therefore I went back to the camp to spend my fourth night there, determined the next morning to walk down the lake to Fort Armitage and organize a search party.
"In the morning I was off bright and early. The snowshoeing was very heavy and my food had not been suitable for one with a hard day's tramp before him. So it vas late in the afternoon, before I rounded the turn in the lake, just beyond which my idea was that the fort lay. To my utter amazement nothing in the nature of a habitation was in sight. The forest on the lake shore was unbroken and the lake itself ahruptly terminated in a river about half a mile further on.
"So great was my disappointment, so overpowering my fatigue that I felt like giving up and lying down upon the snow to die: but after a few minutes of mute despair, my courage reasserted itself. Probably the sight of open water ahead served in a measure to revive my spirits. The outlet of those northern lakes never freezes; and here was a chance to hook a fish or two, and that to a hungry man would be a treat indeed. My fishing line was out in a minute, and without waiting to cut a rod, I threw the flies upon the water. They were seized like a flash by two lusty trout and in as many minutes I had a dozen splendid fish upon the snow. To make a fire, to broil as many trout as I could eat, to eat until I could eat no more, occupied me for the next hour. Then I set about extemporizing a shelter for the night and succeeded pretty well, though the result of my labors was only a poor substitute for the snug like hole in the snow at the other end of the lake.
"The weather continuing cloudy it was not possible to form any idea of the direction likely to take me to the fort; so I resolved to wait a day and spend it in catching and cooking fish and smaring hares. My opinion was that the lake on which I was joined that upon which Fort Armitage was situated, and if this were so, by retracing my steps I would come to the thoroughfare between them. If this were the case two day's tramping at the most ought to take me to my destination.
"For five more weary days I plodded over the snow, sleeping in hastily contrived camps. My feet grew sore

my rescue had come about smply enough.
from the chafing of the snow shoe strings. My limbs almost refused to bear me. The little supply of food which I carried became exhausted, though I ate as little as was possible to get along on with. Two or three times despair almost got the upper hand. At length growing weary of exploring lake after lake, I tried to make a straight cut across a ridge of considerable height, hoping that something different from the menotonous line of fir trees might greet my gaze on the other side. Near the tup of the ridge a fallen tree las directly in my path. I had not energs enough to step over it, but sat down upon its trunk from which the wind had swept the snow. In a dreams way I began to count the days since the storm, and remember having reached the conclusion that this was Christmas Eve, before, lying on the tree trunk, with my arms clasped around it and my snowshoes dang. ling from my feet, sleep overcame me.
"My next sensation was that of being violently shaken, and I opened my eyes to find those of Nellie Armitage looking into them.
"Oh, Mr. Markwell," she said, "I'm so glad I've found you."
"So am I was my answer. Neither of the remarks was particularly brilliant; but I have noticed that people are not very brilliant when according to theory they ought to be. "My rescue had come about simply enough.
"Joe had reached the fort during the second night after we had become separated, and having despatched a messenger for my father, they had organized search parties for me, in which the girls participated, they scouting the woods near the fort, the others going further away. Nellie had made a somewhat longer circuit than usual that day, and had crossed my snow shoe track about noon. She had a dog sledge and three dogs with her, but was herself on snow shoes. My track where she crossed it was not more than a mile from the fort, but I had wandered about so much that she was the whole afternoon in coming up with me. Plucky girl that she was she kept on though alone, except for her dogs, but then she knew every foot of the forest in the neighborhood and could have easily found her way home in the moonlight. The place where she finally came upon me sleeping was not two miles from the fort.
"She urged me to take a seat upon the sledge. Though I refused at first and tried to walk, so fatigued was I, that she prevailed upon me with little difficulty to comply with her wishes, whereupon she set out on a run, the dogs following her. In a few minutes we were down upon the lake, when she stopped, took a whistle from her belt and blew vigorously upon it. Then she resumed her running. It was with difficulty that I kept awake, bu. soon the lights of the fort gleamed
ahead, and the panting girl halted her dogs before the door. which opened quickly in response to a second note fron her whistle.
"Only her sister was in the fort ; those of the men, who were not out searching for me, bei'g out looking for Nellic, whose long absence had made her sister uncasy.

It had been understood that all the search parties should report at the fort that night. My father and Joe were the last to come in. I did not stay awake to grect them, but after a warm supper went to bed and fell into a slumber so deep that they had difficulty in arousing me even for the Christmas dinner."

## NICKEL.

BY A. B. WILLMOTT, HARVARD UNIVERSITY.

An ore of this element was first described in 1694 by Hiarni, who gave the Cerman name Kupfer-nickel or the copper of old Nick, because, though resembling copper, that metal could not be extracted from it. Hence, some years later, when thas ore was shown to contain a new substance the name nickel was given to it.

A closely allied element recelved its name in a similar manner. Certain ores of copper, not smelting properly, were reputed to be under the influence of Kobbold, a German devil. The dispossessed sprite is now the useful mineral cobalt.

Nickel is a very hard metal, looking like stlver, and especially mportant because it does not rust easily. When a substance rusts, it is simply burning up, only so very slowly that we do not notice the heat it gives off. Nickel is somewhat like iron because it is magnetic and can be welded and beaten into plates.

The metal does not occur m nature, as we see it on our stoves, but in combmation with other substances. The principal ores are Kupfer-nickel or Nicolite, containing nickel and arsenic, which is found at michipicoten Island, Lake Superior; Gersdorffite, consisting of nickel, arseme and sulphur and found in Sweden; Brathauptite, a compound of nickel and antmony; Millerite, or nickel-sulphide, which is found at Sudbury; Ontario, Oxford, Quebec, and in Newfoundland; Garnierite, a combmation of nickel, magnesium and silica found in New Caledoma. Nearly all the meteors that fall to the earth contain nickel and by means of the spectroscope we know that it is in the sun.

The deposits from which we get a large proportion of our nickel are really iron ores, the nickel being an impurity. Purrhotite, in a pure state, is a bronze-yellow mineral, magnetic in fine powder, and consisting of iron and sulphur in the proportion of 60 to 30 by weight. Nickel may constitute as much as 9 per cent. of the ore, but this rarely occurs. Pyorhotite containing nickel is found in Newfoundland, Nova Scotin, New Brunswick, Ontario, and some other places.

In 1876 nickel was worth $\$ 2.60$ a pound, but the discovery of large amounts in New Caledoma brought down the price to 65 cents a pound in 8887 . But as it became cheaper and better known the demand for it became greater. Threc years ago a new source was discovered at Sudbury, Ont. The Young Cinadian has already told us of it. The ore is a mixture of sulphide
of copper and sulphide of iron, the latter carrying 2 to 9 per cent. of nickel. It is probably the richest deposit in the world, and already many tons of ore have been raised.

After a rough handsorting to remove most of the copper ore, the rest is crushed in a 'breaker' to pieces the size of a hen's egg. Next about 700 tons of this crushed ore are piled on 30 or 40 cords of pine wood, which is then lighted. The mass burns about fifty days, most of the sulphur being consumed. The roasted ore is transferred to a 'smelter'. About three-quarters of a ton of ore are fused with one-ninth as much coke. By this means the ore is concentrated to a 'matte' containing about 15 per cent. each of nickel and copper. At present this matter has to be sent to Swansea, Wales, for further treatment. The separation of the nickel and copper is a difficult process, and not very well understood. As the method is made more perfect nickel will fall in price and so admit of a more extended use. Dr. Peters, the manager of the Canadian Copper Co. thinks they "will be able to sell it with a handsome profit at 25 cents or 30 cents a pound."

About 1,000 tons a year are used at present, principally in electro-plating. The nickel is deposited on polished iron by means of an electric current through a solution of nickel anmonium sulphate, and afterwards polisked. German silver, an alloy of copper, zinc and nickel, has an extended use in household articles like knives, etc. Another use is for coinage. Switzerland, the United States, Belgium, Germany, Jamaica have one after another adopted an alloy of nickel and copper for their smaller coms. It is rather remarkable that a coin of the Bactrian King, Euthydemos, who reigned B. C. 235 has about the same composition, i. c. 25 per cent. nickel, 75 per cent. copper.

But this past year nickel has entered on a far wider ficld of usefulness. Experiments conducted in Scotland and in France have shown that the addition of nickel to steel increases the hardness, strength and elasticity of that most useful substance as much as 30 per cent. Varying proportions give different results. Recently a forcign government ordcred a nickel-steel sheeting for one of its men-of-war considering that the best protection that could be procured.

With this new demand it seems as though we should soon have in our midst one of the most important mining industries of the world.

## FUR, FIN AND FEATHER.

UPS AND downs in the dife of our birds.
hy J. M. lemoine, f. r. S.c.
One of the most curious of the many mysteries of bird-life is the time and mode selected by the migratory species in spring and autumn. It may not be out of place to direct the attention of our budding naturalists and amateurs to this strange phase of zoological study.
September and October are the great epochs for the fall "flitting." Birds have theorics of their own about the proper time and mode for their annual flight to or from Canada, to their more genial winter quarters in the South. Crows, swallows and some of the water fowl would not dream of venturing away, without having first had several noisy pow-wows or conclaves. Some birds migrate at night and seek their food also at night. Owls, woodcocks and bitterns do.
Not many years back, a few days in advance of the September equinoctial gales, on a starry, cold night, the whole air above the city seemed alive with the loud notes and call of myriads of birds, flying in a contiauous current towards the South. It was stated, that during the night, portions of the winged travellers had lit on the glacis, facing the Citadel.

At eight o'clock next morning, the rear guard of the passing host, could still be heard over head.

How many thousands were there in this everlasting army of migrants and to what varieties did they belong? They were indeed the harbingers of a coming storm, a severe one too, but were three days ahead of the storm !!

These "night flittings" are not, however, without their alarms and dangers : not a season passes but that instances occur of birds being found under the telegraph wires, or in the vicinity of the light-houses on the sea shore, dead or maimed from having come in contact with the wires or light-house reflectors, during the silent hours of night.
Many of our spring visitants among the warblers return home in autumn by a different route. One meets them in May, radiant and happy in their bright, nuptial costume, but how and when do they return to their winter habitat. There again lies a mystery. Certainly, not by the same route.
The bobolink and several of the sparrows arrive soli-tary-the males first, the females following about a week after. Some birds, more social, more clannish, arrive in large parties-noisy, romping bands, all of the same species. Others, more cosmopolitan in their ways, tiavel by easy stages, mixed up with birds of a different kind.
More than once, on emerging from my residence, I have, on some bright May morning, discovered a half dozen of purple Grakles, mingling their harsh notes with the jolly spring migration of robins in full songsome two hundred red-breasted musicians, whose tents were annually pitched for a few days on a moist meadow watered by the Belleborne brook, until all the matches being settled, the merry crew started to set up housekeeping, mayhap, in the wilds of Hudson Bay. More than once I recollect noticing, in the white clouds "of snowflakes," who light on the pastures in March, glossy, dark birds which I easily recognized as the Lapland-longepur.
And again, why are certain species so abundant some years and nearly unknown, here, at others? I can recollect the hawk owl being shot in very large numbers round Quebec in 1859 ; one hundred, perhaps, were brought to market that season. At present scarcely a half dozen are captured during a season round the city. Is the bird of wisdom leaving us for ever?
High winds and rainstorms bring us occasionally
some rare "accidentals." Thus, a splendid specimen of a Florida bird, the Glossy. This was contributed to my collection, in 1876 , by Mr. Paul J. Charlton, of Quebec. The bird was shot by him from a flock of six who were on the beach at Grondines.
In a paper published in the Butletin of the Nuttall Ornithological Clul, a leading United States naturalist, Mr. H. W. Henshaw, assigns several causes for the apparent decrease of birds in certain localities, and after setting forth the severe losses which the feathered tribe annually suffers from birds of pres; foxes, weasels, snakes, skunks, etc., he furnishes extracts from reliable sources to show that rain storms and high winds in the neighborhood of the great lakes, at the period of the spring migration especially, often cause the destruction of innumerable quantities of birds, in addition to occasional epidemics, which may effect them, as well as other branches of the annual kingdom.

Let us quote: "Very few people," says the Chicago Tribune, "have any idea of the really immense number of birds which are lost in the great lakes every year. They are driven off shore by heavy winds, or, crossing from shore to shore, are tired out and fall into the water.
"Very many are lost when they come up from the South in spring, and there are more or less losses all summer, though the fall is the time in which the greatest destruction occurs. Thus the birds are gathered in families or flocks, living a nomadic life all through the time of molting, wandering everywhere in search of food. Their new plumage is not always perfect, and their flight is therefore apt to be feeble, and September gales drive them where they will. It is not the small birds alone that fall victims, but the largest and strongest as well as the small and delicate.
"Two years ago (1879) there was a heavy ctorm, lasting some twenty-four hours. It occurred during the first week in September, and the eastern shore of Lake Michigan was strewn with dead birds. I took some pains to count these on a certain number of yards, and estimated that if the eastern shore was alike through all its length over half a million of birds were lying dead on that side of the lake alone.
"It is more than likely that nearly as many more were on the west. Not all the birds could be counted, because many were immediately buried in the sand that is being swept back and forth on the beach.
"It was a strange and pitiful sight. Some were so fresh and perfect, and their feathers so unruffed, that it seemed impossible that they had been drowned. There were multitudes of wrens, with narrow, gauzy wings spread out, so that the wind swept them down on the sand, like autumn leaves scre and brown. Tiny creepers looking ghastly with only a head and wing unburied, and moving as if alive; knights with their bright crowns defaced huddled into a group, where I counted a robin with fair unruffled breast, a king-bird, a summer yellowbird, and one orange-crowned warbler. The greatest number of any one species was the yellow-winged sparrow, both young and old. The grass finch and the song sparrow were abundant, as well as the familiar little hair-bird.
"There were cow-birds, and one or two black-birds, and no orioles. Blue-jays, one or two, much worn and defaced, and the common phebe, more numerous. Belted king fishers I saw once or twice, and of the picidx, the red-head and the golden-winged a single specimen each, as well as two of the downy wood-peckers.
"I have observed that all through the summer more or less birds are drowned and thrown on the beach. How many, it is impossible to say, as they are'soon covered with sand or carried away by the prowling wild cats, whose tracks I constantly saw there.

# PROF. SPLITAROKSKI'S Fun for the Boys and Girls, 

 IN NEXT ISSUE.
## HOW WE WENT BOTANIZING.

BY K,IY IIVINGSTONE.

Trip the First.
—_"Which brings
The Spring, clothed like a bide, When nestling buds unfold their wings, And bishop's caps have golden rings, Musing uwn many things,

I songht the woodlands wide."


HE delightful course of lectures on Botany was over. Our Professor- 2 he Ideal, some of us cinied him-had beamed at us over his spect.icles, and taken us into his confidence largely; talking on and on in that genial way he had, so hard to follow because he said so much, as if he really liked us, and then had "gone back on us," the girls said, and given us the hardest exam. ever heard of in any fourth year.

However, you may be sure we had all "bobbed up serencly" when the results were declared, and it was found that nearly all of us had taken "firsts."
Then the momentary waning of enthusiasm over the popular study gave place to renewed energy, and the few specimens already mounted by the fortunate were regarded as a beginning, which Spring would surely extend into a truly voluminous heriarium.
How long the rest of the Winter seemed to us, young and impatient as we were! Never had the lagging snow taken so long to melt, or the warm winds and strong, bright sun to make the desired impression! There is a Persian-l think it is Persian-proverb whish says, with rather pathetic patience, "feren this too will pass." And so it will, winter, or anything else, if you come to think of it-and it did, or this sketch would never have been written!
There were three of us who had been going to the lectures; Theosorke, pronounced if you please, with an accent on the last $c$;-Our pretty cousin Louise, and myself. Hoving that our brother Ted, a nice but slightly unmanageable youth in his second year at college, might prove useful as a beast of burden, we had used all our powers in sarcasm and flattery to no purpose. He had known some fellows, he said green ones-who had begun botanical collections, but who invariably got over their cothusiasm on finding that it meane scrambling over mile after mile of hill and valles, rock and river in the pursuit. Besides, he continued, he did not approve of this mad struggle after knowledge at present occupy ing the attention of Lovely Woman!

Indeed, I am afraid the whole scheme would have fallen through, had not Theo happened to say something about Lou being one of the party, and then it was funny to sec how suddenly the face of the circums. nees changed. Cif how much more consequence is on cousin than two sisters !

Ted, I need scarcely add, from that time smiled most sraciously on all our proceedings, and offered to lend his valuable assistance to any extent.

Fortunately the day agreed upon-a Saturday-was perfectly heavenly, if I may be allowed the expression, and soon after breakfast we started, fully equipped for the fray:

Here I must ask you to wait while I give an account of the things we took with us. There were-a large knife or trowel for each, strong enough to dig up roots and bulbs, as well as for cutting woody branches; and a botanical box and portfolio. The botanical box is more than useful for preserving specimens in a fresh condition. It is made of japanned tin, and rounded, from twelve to eighteen inches long.

Any tin box of convenient size will do, although those made for the purpose are very handy, having a handle at either end to which a strap is attached, and the whole thing can be slung over the botanist's back. It is needful that the lid-opening for nearly the entire length of one side-should close tightly, so that the specimens may not wither. Most flowers and leafy branches, if slightly sprinkled and closed up, will keep fresh for hours, or even all night; but the safer course is to analyze and classify them as soon as possible after being torn from their "native jungle." The portfolio is not absolutely necessary, except for plants too delicate even for the box.

Botanical specimens should be either in flower or fruit. Herbs often exhibit both on the same plant, and whenever it is possible both should be secured, as it makes a much more interesting collection. When it does not exceed fifteen inches, the whole plant, root and all, should be taken up. If longer-say eighteen inches -a neat-handed person may arrange it in some way by curving the plant, and fastening the whole to sheet of paper, without sacrificing any part of the root; indeed, I believe I would almost as soon cut off my youthful nephew's legs, because he has outgrown his cradle, as unnecessarily clip away any tiny rootlet so that the plant might attain immortality in my collection.

However, this is a long digression. Let us return to the excursion just starting, Ted, of course, car eing our empty baggage. Much to our surprise, he did not grumble at all, only enquiring with effusive sarcasm if we had not a step-ladder, screw-driver, dark-lantera, or other domestic utensil, with which to coax Nature's secrets from her.

Fortunately for us we had not far to go before getting to a swamp, below a stecp, shrubby bank, situated not far from the foot of a hill. This swamp had been decided on as the scene of action for that day. In the selection we thought we had been wise, for necessarily we had a larger choice, very different kinds of plants growing in wet and dry soils.

We thought- we were but joung -that when we became tired of the marsh, hilly work would form a pleasant diversion. Alas! we soon had the conceit taken out of us, and found without much searching that it would take considerably more than one short morning to exhaust its wonders.

It is needless to say that the fence enclosing this delightful if somewhat sogsy place, we girls did not climb. Did you ever see girls willing to climb fences when any man happened to be present? In spite of Ted's sneers, and jecrs, and fleers, we one and all squeczed through a space scarcely large cnough for a well-conditioned cat, intently watched, ineanwhile, by a sociable old gentle man, who ought to have been looking after his cows, and who leaned both arms on the fence, by the way, I suppose, of putting himself and us more at our ease.

At first, to our inexperienced eyes, the vegetation seemed to consist principally of wet, spongy moss, in which our feet left deep impressions, and fern-fronds slowly unrolling themselves as they forced a way through
the cold, wet ground. Of these, however, we did not stop to take much notice, as we knew they belonged to a murh more intricate branch of the science than we were, at the time, capable of undertaking.

As we advanced into the jungle, work began in earnest. To dig we were not ashamed, and the trowels were in constant demand, in spite of an occasional young frog le:ping hither and thither in wild terror at our incursion. Many an accident we narrowly escaped, and several times when we thought a foot firmly planted on a clod of earth, it slipped off with a suggestive glug which caused a wail of anguish.

Of course, going over a swamp in this way requires more care about one's footing than almost any other ground, but I cin truly say that the reward in the end greatly overbalances the trouble. Of all the exquisite wild-flowers I have ever seen, some spring marsh-plants, I think, exhibit the most delicate purity.

Among other Canadian specimens, I may mention the Star-fosuer (Trientàlis Americana), a fragile little plant, generally growing upon decried stumps. Its whole height never seems to exceed three inches or thereabouts. A slender stalk rises from the ground for about two inches, where it branches out in a whorl of leaves, very irregular in size and number. From the middle of this cluster is 0 tinj stem supporting the only blossom. This flower is white, and something like a small wild straw-berry-blossom, only that the petals, six in number, are of thinner texture, and slope to a fine point.

Another plant which vies with the Star-finuer has a hard name-Menganthes trifoliata-from two words meaning month and a flower, because that is about the length of time which it can spare to make our world beautiful. This herb is perennial, or lasting from year to year, and the flowers are also white, as a great proportion of wild, and particularly spring-fowers, are. The corolla of the Mfenyanthes is cup-shaped, and the inner surface of the cup is bearded, or filled with delicate, curled-up white hairs, giving a misty, foam-lihe, and withal very beautiful appearance to the blossom.

All about us myriads of Marsh Marigolds spangled the surface of the ground, reminding us of Jean Ingelow's quaint, fondling words-

> "O brave Marsh Mary buds rich aud yellom, Give me your money to hold."

This flower (Cillita pahistris) belonge to the Crousfoot Family-to our family now, said Teddy, securing some of them-and is too common to need much description. It rejoices in two names for every day use-Marsh Marigold and Couslip, although it resembles neither in anything but the colour.

All this time, like Persephone of old, we had been straying further and further in among the wild luxuriousness of vegetation. Near by the Flag, with which we are all so familiar, lifted its stately head of bluc, variegated at the base with green, white, and jellow, and veined with purple. The name is derived from the Greek, signifying nothing less than rainboav deificd! How they must have adnired it-those Grecks-and what a pretty way they had of showing their admiration! Nor are they the only ones who have given it a place in their esteem. Have not the poets spoken much and often of the "royal lilies" of France -although, to be sure, some people say the fieur de lys is but a lancehead, and others again, originally a bee-and were not the helmets and shields of the knights of old often decorated with them, when they met in mortal combat, or only playfully whacked and banged each other about in the "gentle sport" for their own satisfaction and the greater enjoyment of the pretty damsels of the period?

But enough of the "Flag" and its knightly memories, for here top was the shrubby Dor-zeood or Kinni-kinnik surely an Indian word-which trailed its red branches down over the water, and held up for our inspection millions of tiny, apetalous flowers; while the Willones (Salix:, said to come from the Celtic sal, near, and lis, water) were draped with a soft abundance of tasseled catkins.

I had stooped over a bright-coloured leaf, a tiny red maple tree, thinking I had found something new, and was rising disappointed, when another little flower caught my eye. Pouncing up it, I found that the leader sup. porting this tiny blossom was by no means the whole of the plant, for a much longer shoot crept out from the root, one of those

> Vines that wandered "Vagrant Secking the sunshine round and round."

Vagrant, indeed, and tangled to such an extent with the things about, that it took a good deal of patience to effect its release. This pretty plant-I say plant, for the flower is very insignificant-belongs to the large and respectable family of the Rose, and is called, in English, Running Sivamp-blackberry:

Rising red and triumphant from my struggle, my attention was directed to the fence, from which we were now far distant.
" Teddy, old child," I said, shading my cyes from the now hot sun, "look at the ancient Cow-boy! What does he want? He's waving something at us!"
"Yes," said my brother, lazily; "I have been watching him for awhile! It's some sort of shillelagh as far as I can make out-but whether a blackthorn or the more peaceable olive-branch-"

> "Oh rome ye in peace hrm, or come ye in war, Or to dance at our brill", young Lord Lochinvar."
quoted Louise gaily, "though if I could see it, I am quite sure it must be the Lost LIIl! ${ }^{\prime \prime}$
"Or," put in Theo, in her funny way, "perhaps a warrint to arrest us for trespassing on holey ground/"

This effort was received with applause, whereupon Teddy voluntecred to "sarah out" and see what was wanted, and started off in somewhat reckless haste to accomplish that end.
"Ied," I called out rather maliciously, for he had been chaffing us all the morning about our mincing ways, "be careful-remember that

> "A true lore forsaken,
> A new lore uas, get,
> But a neck that's once broken
> Can never be set !"

Not that there was much danger of his neck in such a remarkably soft place; but that did not alter the . beauty of the sentiment.

Teddy answered by a scornful Jaugh, and a long leap at a mossy trec-roor, which would, no doubt, have convinced me forever of the superiority of man, had the treacherous thing not given way; and landed our pride and joy in a frightfully wet and undignified position.
I believe we all rushed to the rescue, but that did not seem to consist of anything but shricking with laughter, while Teddy picked himself up, and endeavoured to wring out some of the superfluous mosture. Strange to say, he took: his immerston like a lamb, merely remarking that "it was all along of you, Elizn," and then took himself away withut another word. How is it that one is always so much more sorry for a person when he bears a misfortune with good humour?

After he was gone, Theo picked her way carefully across the swamp, and after a short colloquy with the
old man, returned, bearing in her hand some surt of wild rose-bush, with long, straggling, red shoots, and but symptoms of leaf-buds. This much we could tell from its general appearance, but, of course, it was no use in a botanical point of view.
I wonder what the old man thought we were searching for, and where and why he took the trouble of digging it up. By way of thanks I took off my hat, and waved it once or twice round my head, to which he responded. What he was-whether a duke in ciisguise, or merely a humble dabbler in science like ourselvesremains a mystery to this day; for when w. returned over the fence on our homeward way, h: and his peaceful cows had disappeared from the scene.
The sun had now become very hot, and we were glad to yield up our burdens to our errant knight, whom we met on the road returning to our aid. It being Saturday, we were obliged to finish our work in spite of tiredness, so after a short rest we proceeded to analyze and arrange each specimen according to its "family," "species," and "variety."
For this purpose, we use the "Manual of Botany of the Northern United States," by Asa Gray, Professor of Natural History in Harvard. This manual is very complete, and includes most of the plants native to this part of the Dominion.
Each plant, after being "prepared "-that is, having superfluous roots and leaves trimmed off-was laid upon a sheet of paper, and another shect was carefully pressed down upon it with the finger, smoothing leaf by leaf to position. When the root or stem is too thick, the inner side must be sliced away, or it will not press nicely.
Having arrived at this point all the difficulty was over. We now placed a drier between every two specimens, and when a goodly pile had arisen we laid them in the copying-press between two calf-bound books, and screwed it down.
The driers, manufactured during previous evenings, are made of several sheets of the poorest blotting paper, -soft, old newspapers will do as well,--lightly stitched together. The botanist should be provided with quite a number of these useful articles, for while the specimens are under pressure, it is necessary to remove the driers often and substitute fresh ones.

As for the copying-press, we were certainly very lucky in possessing that admirable invention. It had been in the house a long time, and its discovery in the lum-ber-room was hailed with unconcealed joy. Mangleweights, irons, and other heavy articles, answer the purpose equally well, though not so easy to manage.
A week or so spent in carcful watching, changing dricrs, and so forth, and we had the satisfaction of secing our specimens turn out remarkably well.
And now we had come to the last stage, which we managed as neatly as possible, sticking each specimen on a separate sheet with narrow strips of gummed paper, and having written in the lower right-hand corner the "family," "gencric," and "common" names, along with the date, place of growth, and colour of the flower, we consigned all the sheets containing plants of one family to a dark-blue wrapper, labelled, and now we bring forth our hartus sicus, to be seen of men with pride and joy -but only when some kindred spirit crosses our path.
Many were the trips we made after that, in divers places and at various times, but never too orien to find something new and something beautiful. The wildwood has a hundred scasons to which we, in our higher intelligence, pay linte heed, for the time of the wideeyed Blood-root is not that of the Violet, nor are the honcy laden Columbine and the Trillisem exact contemporaries of the Ox-cyed dinisy. So we still go about, noticing here a little and there a little of the Great Creator's
plan, as all must do who not only see but observe, until it is easy to say with Elizabeth Barrett Browning:-

## "Earth's crammed with heaven, And every common bush afire with God." <br> ALL FOOLS' DAY. <br> A Batcll of first of april pranks.

When the day comes we all know it. There is no day like it. It stands out by itself in the Calendar, -in the Canadian Calendar as well as in others. There's the whispering the night before; then the muffled tripping of mischievous little feet in the morning ; the giggling on the way down stairs,-the laughter that, in spite of everything, will out ; the sombre smile of nater and pater ; and the choking chuckling of the urchins.
Dear Old Canadian, had you ever a yiece of paper pinned to your coat tail? Did you ever walk into the parlour expecting an important visitor after a fearfui pull of the door bell, to find an empty salon, and even Bridget in her apion strings suffocating from her propricty? Were you ever sent to the nearest booksellers to oblige a friend by bringing home the History of Eve's Grandmother? Have you never asked, in the corner Fancy Store, for ten cents worth of " strap oil," and found when it was too late, a brigade of boisterous nephews on the alert to "give it" hard? Have you never supplied a fund of merriment for days after, by your one thoughtless moment on entering the breakfast room?
in england
a number of years ago, a card of invitation with a mysteriously official look, was issued, as follows:-

Tower of London.
Admit the Bearer and Frieud to vice the dnnual Ceremony of Washing the White Lion on April lst. Admitted ouly by the White Gate. It is particularly requested that no gratuities be given to the Wianden or his Assistants.

All day long cabs rattled and rushed with self-satisfied April Fools in quest of the White Gate.

IN FRANCE
a lady had stolen a watch from a friend's house on April ist. Unfortunately for herself she was detected, but, keeping her wits about her, she tried to pass off the affair as an April joke. The magistrate, however, kept his wits about him too, and sentenced the would-be practical joker to imprisonment till the next Fool's Day:

While Francis, Duke of Lorraine, and his lady were imprisoned in Nantes, they effected a very clever escape under shelter of the days and its jokes. They both disguised themselves as peasants, his lordship with a hod on his shoulder, and her ladyship carrying a basket on her back. At an eariy hour of the day they passed through the gates of the city.
Suspicion was aroused, however, in the mind of a peasant who recogniaed the figures, and ran to the guard to warn the sentry.
"April Fool" cried the soldier, and the cry was echocd around from sergeant to captain.

During the day the story,-the good joke, was told to the Governor, who did not see guite so much fun in it as had been expected. Causing an examination to be made, he had the mortification to find that the joke had been but too well played. The duke and his lady had escaped.


YOUNG CANADIAN TANGLES.

I.

1. A. 2. At. 3. Mat. 4. Mate. 5. Tames. 6. Master. 7. Steamer. 8. Streamer.
2. 
3. A. 2. At. 3. Eat. 4. East. 5. State.
4. Estate. 7. Testate. 8. Attested.
5. 
6. B. 2. Be. 3. Bet. 4. Beat. 5. Baste. Beasts. 7. Stables. 8. Blasters.
7. 
8. D. 2. Do. 3. Sod. 4. Sold. 5. Solid.
9. Soiled. 7. Soldier. 8. Soldiery. 9. Soldierly.
10. 
11. G. 2. Go. 3. Got. 4. Gout. 5. Tough. 6. Though. 7. Through. 8. Thorough.
12. 
13. I. 2. In. 3. Nip. 4. Pins. 5. Pines. Spines. 7. Spinets. 8. Spinster. 9. Sprinters.
14. 
15. I. 2. Is. 3. Sit. +. List. 5. Stile. 6. Listen. 7. Glisten. 8. Gentiles.
s.
16. I. 2. Lat 3. Ale 4. Late. 5. Stale. Plates. 7. Staples. S. Plasters.
17. 
18. M. 2. Me. 3. Met. 4. Meat. 5. Meant. 6. Mental. 7. Aliment.
19. 
20. M. 2. Me. 3. Mat. 4. Tame. 5. Meats. 6. Metals. 7. Laments.
II.
I. N. 2. No. 3. Not. 4. Tone. 5. Notes. 6. Sonnct. 7. Bonncts.
21. 
22. N. =. No. 3. Con. \& Once 5. Cones. 6. Scones. 7. Seconds.

$$
\therefore 3 .
$$

1. O. 2. Or. 3. Ore 4. Sore. 5. Roses. Stores. 7. Forests. 8. Fortress. 9. Foresters.
2. P. 2: Up. 3. Sup. 4. Puss. 5. Spurs. 6. Purses. 7. Pursues. 8. Usurpers.
3. 
4. S. 2. So. 3. Sod. 4. Does. 5. Domes. 6. Modest. 7. Stormed. 8. Mortised.
5. 

r. T. 2. To. 3. Toe. 4. Rote. 5. Otter. 6. Rotten. 7. Torrent.
17.

1. U. 2. Us. 3. Use. 4. Ruse. 5. Users. 6. Russet. 7. Trussed.


## some Delicions Ways

OF COOKING EGGS FOR EASTER.

## Baked Eggs (Another Way.)

Line a baking dish with finely minced cold fowl or veal, about two inches deep. Sprinkle over with bread crumbs, about an inch deep. Over these strew many bits of butter. Sprinkle with salt and pepper, and pour . over it a teacupful of cold gravy. Break, carctully into the dish, eggs enough to cover the crumbs, and set in the oven to bake. Serve as soon as cooked.

To Dress Eggs.
Break your eggs separately into cups. Have ready a large pan half full of water. When it boils set in your cups. Croik the eggs to taste. When done turn out upon 'juttered toast, or, if for dinner, prepared squash or mashed potatoes.

## Chinese Bird's-Nest of Eggs.

Make a white sauce as follows:
Stew half a pound of lean veal, cut into strips, with a large sprig of parsley, in a quart of water, until the meat is in rags, and the liquor reduced one half. Strain through muslin and return to the saucepan, with one half cupful of milk. When it boils, thicken with a little rice, or wheat flour. Season with white pepper and salt, and the juice of half a lemon. Set in the comer to keep hot.

Have ready six or cight hard boiled eggs. Take out the yolks carefully, and cut the whites into thin shreds.
Pile the yolks in the centre of a round shallow dish. Arrange the shreds of white about them in the shape of a bird's nest. Give a final stir to the sauce and pour it carefully over the eggs. It should not rise higher in the
6. dish than half way to the top of the nest, when it flows domn to its level. Garnish with parsley.

## Eggs as Snow. (Oeufs a la Neige.)

Set a pint of milk, or more, in a shallow stew pan. Sweeten liberally. Flavor with vanilla, orange water, or rose water. Separate the whites and the yolks of six eggs. Beat the whites to a froth with a little pounded sugar. When the milk boils, poach in it, one by one, tablespoonfuls of this froth, turning them over with a ladle, until they are equally done all round. The dish will be handsomer if you vary their size, making some twice as big as others. As they are done arrange them on a large dish, grouping the biggest in the middle.
When all the frothed whites are disposed of, set the stew pan of milk on the side of the stove. Mix a small quantity of the milk (alter.it has cooled a little) with the yolks and then thicken with them what remains. Pour this amongst and around (not over) your snowy froth. Serve cold. Sweet biscuits or sponge cakes are often eaten with this. Exitremely aice.

## Egg Puffs.

Six eggs; one pint of milk; three tablespoonfuls flour ; four ounces melted butter; one large spoonful of yeast ; mix ; hall fill cups, and bake fifteen minutes. Eat with warm sauce, or any nice syrup.

## Omelette with Jelly.

Beat whites and yolks of five eggs separately, adding to the latter after they are thick and smooth, four tablespoonfuls of cream, and two tablespoonfuls of powdered sugar. Fhavor with vanilla, and stir in the whites with a few swift strokes. Put a large spoonful of butter in the frying pan, and when it is hot pour in the omelette. When done, which will be in a very few minutes, spread upon it some nice jelly. Take the pan from the fire to do this spread quickly. Slip your knife under one half of the omelette, and double it over. Turn over on a hot phater, sift powdered sugar upon it and eat at once.

## Devilled Eggs.

Boil six or eight egss hard. Leave them in cold water until they are cold. Cut in halves, slicing a bit of the bottoms to make them stand upright. Take out the jolks and rub to a smooth paste with a very little melted butter, some cayenne pepper, a touch of mustard, and just a dash of vinegar. Fill the hollowed whites with this and send to table upon a bed of chopped cresses, seasoned with pepper, salt, vinegar and a little sugar. The salad should be two inches thick, and an egg should be helped with a heaping tablespoonful of the salad.

## Egg and Corn Omelette.

Take half a cup of canned corn (or the same amount cut from the cob.) Chop up very fine; add the yolk of one egg well beaten, with pepper and salt to taste, and two tablespomns of cream. Beat the white of the egg to a stiff froth, and stir it in just before cooking. Have the griddle very hot and very well butered. Pour the mixture on, and, when nicely browned, turn one half over the other, as in cooking other omelettes.

## An Excellent Way of Cooking Eggs.

Break them in boiling milk, without beating. Cook slowly, stirring now and then. When done soft, pour into a dish, and add a iittle pepper, salt and butter.

Plain 0melette.
Beat to a stiff froth the whites of two eggs; then the yolks to a smooth paste. Stir in to the yolks a teaspoonful of milk, three quarters of a teaspoonful of four or corn starch, pepper and salt to taste. Lastly stir in the whites. Fry in hot butter. Turn carefully and cook on both sides. Serve on hot plate, to be eaten at once.

Omelette Soufle.
Break six eggs. Separate the whites from the yolks. To the latter put four dessert spoonfuls of powdered sugar, and the rind of a lemon, chopped very fine. Mix them well. Whip the whites and add them to the rest. Fry in a quarter of a pound of butter over a slow fire.

## Cheese Omelette.

Grate some rich old cheese, and, having mixed the omelette as usual, stir in the checse with a swift turn or two of the whisk, and at the same time some chopped parsley and thyme. If you beat long the cheese will separate the milk from the eggs. Cook at once.

## Apple. Omelette.

Take six large pippins. Pare, core, and stew them. Beat them very smooth while hot, adding six tablespoonfuls of sugar, one of butter, and nutmeg to taste. When cold add three eggs, which should be whipped light, yolks and whites separately. Put in the yolks first, then add a teaspoonful of rose water ; lastly the whites, and pour into a deep bake dish which has been warmed and buttered. Bake in a moderate oven. Serve with cream.

## Omelette with Ham, Tongue or Chicken.

Make precisely as plain omelette, but when it is.done scatter thickly over the surface some minced ham, tongue, or seasoned chicken. Slip your broad knife under one side of the omelette, and double in half, enclosing the meat. Then up-set the frying-pan upon a hot dish.

## Omelette Fritters.

Make two or three thin omelettes, cut them into several squares and roll. When cool, dip them into batter, and fry. Serve with parsley.


ANCIENT BOOKS AND BOOK-MAKERS.
Before we dip more deeply into our subject, I should like all my young clubs to think a great deal more about a book than they have been in habit of doing.
I am taking for granted that you are well remembering my advice at the conmencement of our club,-all about the way to take care of a book, how to cherish it, how to be polite to it, how to give it the very best chance of living to a good old age in health and strength and beauty.
Apart altogether from the labour of writing it, which I will tell you about some of these days, the work, and care, and taste that are expended before a book is produced ought to entitle it to our best respect. I think that when we remember how very early in our world's history people began to love books, how very much they loved them, how they prized them, fondled them, and guarded them from injury, it would help us to see
in its true light.
The word comes from "beech," as some early writings were done on the inner bark of the beech tree, or carved on beech boards.
The Greek name for "book" comes from the Egyptian word for the papyrus plant, about which I am going to tell you something. The Latin name is from the tissue of the same plant. From the Greek we get "bibliotheque," and from the Latin "library." The papyrus was wound round a roller, called "volumnia," and from this we get our word "volume."
Now let us go back to the days when the world had no paper, and -
"What! Mr. Pater, were there ever days when we had no paper? whatever did we do then ?"
Just the best we could. Pretty much what we are doing now without things that we are sure to have in the future, and the boys and girls then will hold their hands up in wonder at us.
There was a plant, called "the papyrus," which was soft and green, and had a kind of pulp, something like our rushes. The part near the root of this plant was finer and whiter than the rest.
The fine skins of this plant were taken off carefully. They were then spread out, side by side, with the edges overlapping a little way to hold then together.

Then another layer was added crosswise in the same manner, all side by side and overlapping at the edges, and these layers were added until the whole was pretty thick. It was then pressed very firm, and laid out in the sun to dry.
This is what was used for paper very long ago, I mean, as long ago as the days of Alexander the Great, and perhaps centuries before that. Tradition says that it could only be made with the water of the Nile. Its mud was the glue that kept the layers together. But this is not very likely, as the plant itself has sufficient glue for the purpose.

When large sheets were wanted, several layers were joined together, as many as twenty sometimes being made up into one sheet.
This was called "a roll." The variety in thickness, that the people in those ancient times could produce,


THE PAPYRUS.
constituted the difference in quality of their paper, and as we now say "so many pounds to the ream," probably our forefathers called it "so many layers to the roll."
The trade was chiefly carried on in Egypt at first, and the Egyptian manufacturers liked to keep up the fancy that their great river had "a secret of the trade," so that they might prevent paper from being made in othe: countries. So you see the dodges that are tried nowadays in vade are not altogether original.
The best qualities of paper were reserved for the priests, and were not allowed to be sold until covered with writing. The priests were the great writers of books, so that that law was evidently a little "protection" that the reverend gentlemen had.
All the ancient monasteries had an apartment called the "Scriptorium," and as you are all now learning something of ancient languages, I need hardly remind you that the name means a place for writing in, -an apartment devoted to writing. The Holy "Scriptures" comes from the same origin, and means "writings." When you say "scribble," you are using another version of the same.
A monk had charge of the Scriptorium. He gave out books that were to be copied, and you will remenber that as printing was not invented, copying was the only way in which books could be multiplied. Pens, also, and ink, as well as books to be copied, were handed out to the other monks, and no man was allowed to speak a word. "Silence" was the law of the Scriptorium. The monks could not have done their work so well, had they been allowed, or inclined, to chatter.
Another rule was that the books were to be copied exactly as they were. No word was to be altered,--not a single letter was to be corrected without permission from the superior.

It was a very slow.process, and a tedious one, although we never hear of the good old monks grumbling about it. It was a useful occupation. It was a scholarly work. It was a "high profession." There has always been a something about books that brings a reward not to be found in other occupations.
It was a great source of expense to the monasteries, all this copying and recopying of books, and pious laymen gave some of their valuable lands to the monks, and left bequests of money "for the making and mending of books."
Still sometimes an error would creep, as with all the care of the monks, and with all the rules of the superior, an error sometimes did. If it was not observed, of course it remained, and when that book came to be copicd, the error was copied too, which was, of course, a pity. But many precautions, in addition to rules, were taken to secure freedom from mistakes. The abliot, the prior, and the sub-prior alone had permission to copy, and the Scriptorium was specially blessed.

As books began to be appreciated, more care was bestowed upon the papyrus. One side was reserved for writing and the other was covered with cedar oil to preserve it.

The ink used was most durable. Rolls discovered in Herculaneum, now being cautiously unrolled by priests, after hundreds of years, are found to be beautifully legible.

These however are written, not on papyrus, but on "parchment." When the Egyptians wanted to keep all their paper to themselves, men in other countrics set about finding things that would do instead. Necessity is the mother of invention.
Parchment was a kind of prepared skin, and was very suitable for the purpose. Hundreds of years before Christ, it was a manufacture of great importance among the Romans. Ink and chalk were used, and the parch.
ment was ruled to keep the lines straight. Mistakes were rubbed out by pumice stone, and a weight was used to keep the skin flat. A knife also was at hand for the monks to cut the parciment when necessary.
The monastery librarians were the guardian of books, -of book-rolls. They had to take care of the precious things on which so much time and labour had been spent, and as the rolls became injured or worn, they had to mend and repair them, as well as to replenish the stock.

Books were then very valuable, and very rare. I came across an old book this morning where I read that the library of Bolton Abbey had bought three books in forty years, and I know that one monk spent twenty-two years in copying out one book for the Emperor Charlemagne.
They were usually copied by order from kings, nobles, and church dignitaries, and the common people never saw them. A great man might borrow one if he gave an additional copy in return, and a heavy penalty was inflicted if it were lost.

Some of these ancient monastery libraries had gathered as many as from six hundred to one thousand volumes or rolls. They were all rolled as we do our maps now. If you asked for a book you got a roll. Being so rare and so costly, they were each kept in a round box with a lid. This box was made of cedar to keep moths away. Moths seem to be ancient as well as modern.

## A ROMAN BOOK-SHOP

was therefore a collection of scrolls, and a monastery libmry was a large collection of round cedar boxes. In these boves you might have seen the Holy Scriptures, Prayer Books, Missals, Psalters, Legends of the Saints, Classics Latin and Greek, and a little of what was then called philosophy. That was about all. No nice Stories, no Books of Adventure, no Boys' Books, or Girls' Books, -and no Young Canadian.

I can scarcely tell you all the materials that books have been made of. Sheets of lead, very thin and quite flat, were fashionable. lby and by thin sheets of wood came in as a rival. They were clasped at the back with rings to keep them in trim order. Books of this kind also have been found in Herculaneum, and in beautiful condition.

These patient and pious laborers did not confine their attention to the usefulness of the books they made, but shewed their ingenuity and their taste in decoration. They made fancy capitais. They used colours and gold leaf. They covered the wood with leather, and velvet. They embellished them with precious stones. They made clasps for them in gold and silver. They made special designs in metal to decorate the front. In every way that the science and art of the day permitted, an

## ANCIENT HOOK

was a work of art, as well as a labour of love.
How terrible to think that but for wars, and the fires that resulted from wars, we should have had many of them to this day!

Do you wonder that I ask you to prize your books?
Are you surprised that in setting out upon our Reading Club I should first of all have drawn your attention to the relation that ought to exist between you and your books?

In those old days neither you nor I would have been wealthy or infuential enough even to have a book in our hands.

Now when we can have them so easily, let us tenderly handle them, daintly open them, reverently read them, and regretfully close them.

Pater.


HOW, WHEN, WHERE AND WHY WE GOT
OUR BIBLE.
A Book of the Bible may be-rst, gemuine; and, corrupt: or 3 rd, spurious. It is said to be genuine when it is proved to have been written by the author whose name it bears. It is spoken of as corrupt when the present text varies from what we believe it once was. It is considered spurious when there is reason to believe it was not written by the author whose name is associated with it.
Printed copies of the Old Testament in Hebrew are to be found as far back as 1488; and of the New Testament in Greek, dated 1516 ; and in Greek and Latin, 1514. At the time these volumes were printed, manuscript copics of the Scriptures, that is, copies, zuritten by the nand, were in the possession of most of the public libraries of Europe. They occupy the largest share of space in library catalogues of the $15^{\text {th }}$ century. Dr. Kennicutt, who edited a critical edition of the Bible in Hebrew, gathered 630 of these written copies; and another scholar, De Rosse, for a similar work, collected $73+$ more.

An ancient Greck or Roman book is believed to be accurate if 20 , or even in some cases if 10 , manuscripts have been examined in its preparation. A very fair average for these ancient works is 15 manuscripts. For Herodotus, for example, we have only 15 MSS., and the oldest dates only as far back as the roth century. Yet Herodotus is called "The Father of History," and his writings are talked of as immortal-that is, they cannot die. Compare this to the abundance of the manuscripts of the Book of Books, and their much greater age. Those of their Hebrew Scriptures date chiefly from A.D. 1000 to 1457, though some belong to the 9th and even to the 8th century. The MSS. of the New Testament are older still. The British Muscum possesses a celebratec one, called the Alexandrian, containing both Old and New Testaments in four volumes, which must have been written before the close of the 5 th century. The Vatican MS., in the library of the Vatican at Rome, belongs to the ath century.

As we reach back to these ancient days, we derive additional evidence of the genuineness of the Books of the bible from the writings of the early Fathers of the Church. These venerated men were the teachers of the new laws of Christ. Their duty was to explain them and to enforce them upon their disciples and students. In their writings quotations are made with the greatest care. The very words of the Sacred Writers are used, and are the subject of much explamation and discussion. Back :o the 2nd century after Christ Himself, we can trace the writings of these Fathers, among whom Gregory, Origen, Jerome, Augustine, are names more or less known to all of us.

In not fewer than 180 writers, whose works are still existing, we find quotations from the New Testament, so numerous, that it has been asserted that, even if the originals had been destroyed, the full text of the New Testament might be recovered from books which were written before the 7 th century. The experiment has actually been tried by an eminent theologian, who confirms the statement.

# THE YOUNG CANADIAN CALENDAR. <br> first prize for ferkuary 

## Treaty ceding canada to england

After the decisive battle of the Plains of Abraham, the war on the continent being finished, expeditions were sent against the French possessions in the West Indies. Many troops were drawn from the colonies for this service, and Martinico, Grenado, St. Lucic, St. Vincent, and the other Caribbe Islands, were brought under the subjection of the British Crown (1762).
War being declared between Great Britain and Spain, early in the year, an armament was sent out by the Ministers for the reduction of Havana, which was taken, after an obsinate defence. On the 3 rd of February 1763, a definite treaty of peace was signed at Paris, and soon after ratified. Nova Scotia, Canada, Cape Breton, and the other French possessions in the north, were confirmed to Great Britain.
The French were allowed to fish off the Island of Newfoundland, but under the heaviest restrictions; and the small islands of St. Peter and Miquelon were confirmed to France. The boundary between the English and French possessions were fixed by a line drawn along the middle of the river Mississippi, from its source, as far as the river Iberville, and thence by a line drawn along the middle of that river, and of the lakes Maurepas and Pontchartrain, to the sea.
The river and port of Mobile, and all the French possessions east of the Mississippi, were ceded to Great Britain, except the island and town of New Orleans All the West India isles, which the English had taken from the French, were confirmed to the captors, and Havana was exchanged with the King of Spain for the Floridas.
With such great natural boundaries as these, it would be difficult to find any cause for the renewal of those controversies respecting possessions, which were formerly so harassing to the Cclonists.

C. B. B. Raymond, Springfield, Kings County, N.B.

## SEE

## Lieut. Stairs in Africa

NEXT WEEK.

## OUR LIBRARY TABLE.

Payne's Business Pointers, and Dictionary of Svnonyms. Excelsior Publishing House, New York.
This is one of the handiest all-round books we have seen. From the formation of a partnership in business till its dissolution, there is hardly a conceivable point on which "pointers" are not supplied. Every possible form of bill, draft, and note; all about cheques; mer cantile terms and synonyms; mercantile laws; tables of interest ; laws for leases, tariffs, naturalization; how to procure a patent or a passport; the postage, weights, and measures of every mercantile country ; in fact the alpha and the omega of business information are all put
into neat and ready form for reference. The volume is compact, the type is good, and the general get up is careful. Should be on every business desk.

Renne's Illustrated Guide for Amateur Gardeners: Wm. Reninie. 'Toronto, comes to us gay and attractive for 189 r .
This catalogue is the largest and most complete that Mr. Rennie has yet published. All the varieties of vegetables, flowers, and plants are carefully described, and the taste of amateurs receives reliable guidance in these pages.
The once common practice of decking out old varicties with new names is a trick of the horticultural trade, fortunately discarded by our best merchants. In grain, flower and vegetable seeds, Mr. Rennie gives his long experience in selecting what is new and good from every part of the world, keeping in mind the demands of our climate.

The cuts in the catalngue are most inviting and tempting. There are beans, carrots, turnips, cablage, celery, cauliflower, cucumber, corn, melons, onions, pease, tomatoes and mushrooms that, now with the snow still about, would make the mouth of the most stoical water; while asters, snap-dragon, amaranthus, adonis, begonia, candytuft, carnations, fox-glove, marigold, phlox, and pansies, such clusters of them, are a pleasure to behold.

The information as to management of flower and vegetable gardens is enough to make Mr. Rennie's catalogue a hand-book for Canadians.


Dear Editor Post Bag, - We have just read "Clizubing the Heights," in "The Young Casadian of February tili. Near the close we find-
"Vergor attempted to escape in his night-cluthes; but was shot in the heel and captured."

Warburton, in our Royal Reader, No. 5, says -
"The Captain, M. de Vergor, alone, though wounded, stood his ground."

Will gou kindly tell us which of the two statements is correct :

We enjoyed "An Afternoon in Our Cotton Mills" rery much, sud hope you will continue to tell us of our manufactures. We would like to know more of our Flour Mills. We aro,

Yours sincerely,
Young Canadians of Osborne School.
My Dear Young Canadians,-Thanks for calling my attention to that variation in the two accounts of the battle.

It often happens, even with the greatest historians, that differences of that kind occur. Sometimes the authorities that they study may have been written from opposing sides, and if a writer does not study all sides he cannot do justice to his subject. Still, even by a study of both sides, it is often difficult to decide certain points. Indeed, there are questions, some of them of less importance than this one, that have been the theme for a long and bitter controversy, without in the end being any nearer a decision than at the beginning.

In this case I took the liberty of writing to our author, Mr. Maripus, and hesends me a card as fol lows:-

## Kingesos, March 6.

My anmority for stathing that Vergor was wounded and capturyd is Francis Parkman. He says "Vergor leaped from bed nud tried to run off, but was shot in the heel and captured"

Now, here are two great authorities differing, and I ha'e not got much satisfaction to give you to your mee letter. However, I have written to my friend (I have the horour to call hon froend), It Parkman, and per haps if such a greit man has a moment to think of us, he may give us a line in reply.

1 ain dehghted to know that nur voung Canadians in Nova toota are so ohservant. There are few letters that the postman has bruaght me that have pleased me more than yours. Huw nice st will be for me to go into the Lditur this morning, when my turn comes, and sas, "There is nothing eseapes the eje of our joung Canadians, see here." I will then read your letter, and see what the Editor says.

Meantme we are glad you liked the "Cotton Mills." I did, too, do sou know. I thought that number about the bent we have had ret It was sodelicious to get away down among the Sambos. I have always heed the Sambun, and, itronge to 2 , , that sung dhout " Minsa in the cold ground," and sambo not bemp whle to work for his tears, wa one of $m$ great favourtes when I was as young an whate I ued to ang it to my own accom panment, and you may be sure I thought myself no end of a mustian.

As to "The lolour Mills, that is coming too. I see a lut of wery pretts picturen in the uffice, but I don't know what they are all about.

The Editur tuld me a few days ago that our pietures are so beautiful that alread three Magasines in the Conted state hase written to know if thes a an purchase the cuts.

What do southink of that for onar lion in. Canaman'
Ei. P. B.

## Mat Pultage, Ont.

Deal. lois Bag, Thank you very muth for your kind and "nculf,ighe letter to mu. That essay of mane was my " maden chote" If gon litters to the rest of the ensuccessful competitors th the Ihstorical (aleadar are as had as the vie to me, you will be the nust popular canadian lady m thas far canada of ours.
is a zoung Catadian I thoroughly apprewate gour paper I lonk fornard cagerly fur it every werh. Liwry number finds some-

 surry I am nut able the sit you a harger bit, but it is half of what "as given to me.

1 must sot take up more of your valuable thwe. I wish your Yius.e. Cisallas ..bery vuce ess and prusurnty

Yours siucercly,
F. ${ }^{\circ}$.

PS - I so bid gua fron from Thumbuti, Eugland I would


F $C$
M, lifak F © . Yes, wur "tiny" specimen reathed me all right, and the tern tou in jour mac kind letter. My tme so never too baluable to wrate to young Canadians. It is the greatest pleasure I have. I like it the best of all the work the Edror gives me to do.

How mece of you to send me these hatte souvenirs: I have put them uto my own cabnet. I have a beauty just made for the purpose, all full of dannty little drawers. Each drawer has a pretty litte handle and a number, so that I know just where everythong is. When my freends call to see me, as they sometumes do, I show them my ponensom, and the fern and the litue lite of ne kel hase already been exhibited more than once.

We are all so glad that you like our Magazine, and that jou thank it is mproving every day. I think so, too.

> Your sincere friend,

Ed. P. B

## Upipr Cavehille.

Drak Editon, - I thank you very much for the nice pencils you sent us - it was very kind of you to get a sprecial prize for us. I had no hope of gettug the prize when I wrote, so it was quite a surprise to ate whell we ${ }^{n}$ t wir letters We like the paper very much, and I have been donk all I could to get others to take it. There is one boy who would like it, but lus father is away in the woods, and he will have to wait till he comes home before he knows whether he can get it or not.

1 made a snow house this winter, and the other mght 1 made a fire in it and it looked quite pretty I musted manma and my sisters out to visit me, but they could not stay, my fire smoked so awfully.

I camuot go to school now, because I have to help papa on the farm Some stormy day 1 wilh write again.

## Yours truly,

Wilile G.

## Upter Cavbriall.

Dear Editur, - I am very proud of the nice letter you sent us, and the pencils ane lovely. A jood many of our friends here call Wallie aud me the twims, so you see it is mee for his to have puents so much alike. We hike The Youlg (asadian, and will try to get some of our fruends to whe it. I have looked over the r'alendar, and I dud hot ser anythngig 1 knew ruough about to wnte, but 1 will try to wnte arxt time Willie is thrteca and I anin twelve, and we had quite made our mands up to write to T, $a$ Focing Canadias before the pencils got here.
a alli ever,
Your loving little

## Dasyr.

Mi Dear Young frieving such a suect little uster and brother I have noi hnuwn fur a long ume. It makes me so happl to find that our fol'vi. (inamis bring me surh friend. in evers part of the coustry such a mee tome we all wall have when wa are grown up a little, and when juu come to Muntreal to see me. I shall hang out ming flat day. I asure you.

## lour old friend.

1.1. I. 13.

Tuctu.
Drali IUuso Canabian Punt Bar., I hithe gunt l'aper rety mach, and luch furward every weoh for as conobio 1 lamh that a losely stury-Kebei or Patrot. And 1 and very ghad tusee that 3ou are fong to give us a Comst in Shori hamd

I thah that jua ate very himel.

> Yours very truly,

## WE. $A$

My Joask latite Wiliak, I thank your lettior is just as sifect as it an be, and su neatly writicn tue, and all by yourself.

II e hase wriltentu fie Vewr. latinan tumahe havte with the Short hand, as a great many of our joung readers are andiuady wathag for it. It wall be nice to have it in time for the fine weather

I muself. wd a I ams. learned it lant anmonar And you won't guess how. Sitting in atent ly one of our lovely lakes, sometmes taking a swing in a hammock under shady trees, sumetimes going in a busy tram, sometimes walking through our woods; sometimes going around visiting my friends, and sometines in my dreams.

Everywhere and anywhere; every place and any place : till I had it I was goin: to say into my fingers but I should say, right into the tip of my pencil.

Yuur short hand friend,
Ev. P. B.

# UNION 

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