

Belburne out July 9th 90

Sir Wm Dawson
McGill College
Montreal

Dear Sir. I have
the Highgate Mastodon
Skeleton. An account of
the finding of which I
mail you today. It is
for sale and I would
like to see a Canadian
institution secure it I guess.
There is not a doubt but it
is the finest skeleton ever
excavated in the world. if
you would like to make an
offer on it we would be pleased
to hear from you soon. as we

have chance to sell it
to foreigners

Hoping to be favored with
a reply soon

Yours

Truly

J. G. Hillhouse

Shelburne

Dufferin Co.

Ont

Belmont
Massachusetts
July 1900

A MASTODON.

Remarkable Discovery in the Neighborhood of Highgate.

THE REMAINS OF AN ANTEDILUVIAN MONSTER—STORY OF THE FINDING—THE WORLD HE LIVED IN, AND HOW IT WAS INHABITED.

Built high and wide, his solid bones surpass
The bars of steel, his ribs are ribs of brass,
His foot majestic, and his armed jaw
Give the wide forest and the mountain law.

If Young's poetic description of the behemoth of Job has relation to any habitant of the primeval world it may well be applied to the giant mastodon whose remains have just been exhumed from their long resting place in a corn field near Highgate.

The skeleton of this colossal mammal has, piece by piece, been disinterred since last Saturday morning, and for massiveness and grandeur of proportions it equals, if it does not surpass, anything yet known to science.

This osteological monster, by whose side the elephant of the African or Asiatic forest would be but a pigmy, has been dug out of a piece of farm land which forms part of a swampy plain. Its exact location is given thus, "The southerly part of the east part of lot 3, concession 6, of the Township of Oxford in the County of Oxford, owned by Mr. John Reycraft." It is a little over 40 miles westward of St.

nephew, with a gang of men, set to work on Saturday, and the reward of their first day's toil was 100 pieces of the gigantic skeleton. The enormous jaws, teeth and tusk proclaimed at once that they belonged to a mastodon, and one of the largest of that branch of the elephant family. On Monday their efforts were attended with almost equal success, and the following day added to the collection which now weighs several tons and numbers several hundreds.

The area of this earliest of earth's sepulchres is 35 feet by 21. The bones were scattered over it, one joint fitting into the other in a bed of grey marl about six feet below the surface. Over the marl is a thick layer of black loamy soil, resembling in composition and quality the lands that skirt a peat moss. It is combustible and will, when fire is applied, smoulder sullenly, and the ashes are like the ashes of a peat fire. The country in the neighborhood has little of the wild or picturesque. Long stretches of plain, with patches of forest, and here and there a slight undulation noticeable are its varying characteristics. For nearly 40 years the work of settlement has been going on around this primitive grave, and man has made his habitations visible on every side. The



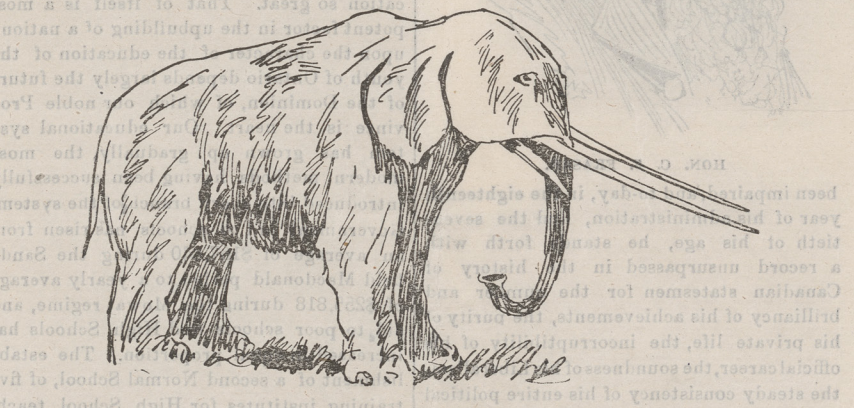
THE HIGHGATE DISCOVERY.

Thomas on the Michigan Central line and 160 miles from Toronto.

Four years ago, I was told the other day when I visited Highgate, the farmers of the vicinity decided to unite their energies in draining a marshy bog—a place which has been apparently more or less submerged for centuries. To carry off the water that accumulated on the surface they cut an open ditch through several lots until they effected a junction with a larger channel. While the ditch was being opened in Mr. Reycraft's land, the excavator, a relative of the owner, struck his spade against what he first regarded as a log of wood, but on examination found to be the big bone

thriving village of Highgate, with its snugly situated dwellings peeping from behind the peach and pear and apple blossoms, is less than a mile away. Far as the eye can reach are the smiling wheat fields and meadows, clothed with the first tender green of spring, and bits of forest not yet cleared away, where the beech and the maple, the ash and the elm are bursting forth in their garb of summer.

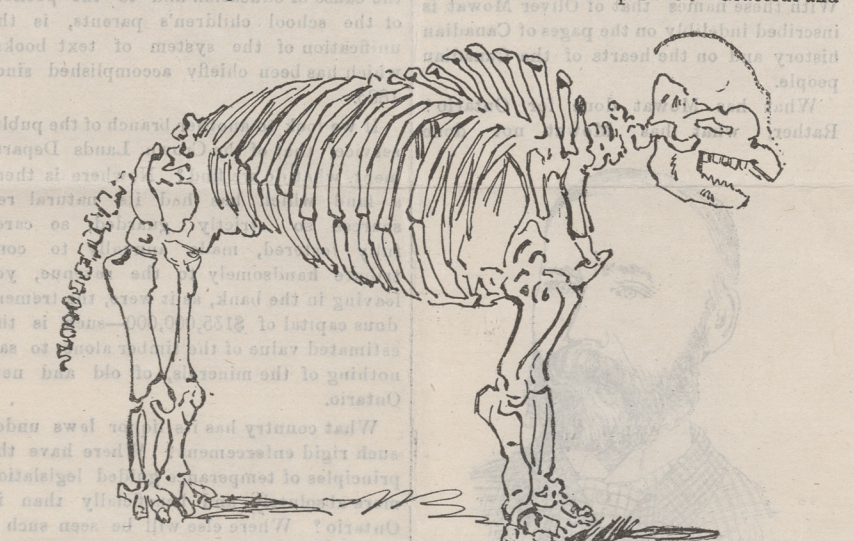
How different must have been the scene when this monster, whose bones have for many silent centuries undergone a process of slow but sure decay, traversed its virgin solitudes. We can imagine the huge dinotherium, the colossus of the ancient



THE MASTODON.

of an animal larger than any he had ever read or heard of. As he continued his digging he came upon some more remains, a large foreleg bone, part of the hind leg, several ribs, vertebrae and one or two other smaller bones. The entire collection was carefully stowed away in the farm house, and few words passed about the discovery. Mr. Reycraft, however, made up his mind to prosecute further search at a more convenient season. The years slipped by, and that convenient season never came. About twelve months ago one of the farm hands was ploughing the field by the side of this lonely ditch and the

world, and rhinoceros shuffling through the marshy grass and apex of prodigious size hanging from the branches of the trees. The mastodon lived through three distinct periods of the world's history, the miocene, the pliocene and the post pliocene. Hardy he must have been, for he experienced great changes of climate varying from more than equatorial heat to the cold of perpetual snow. It was in an age of sylvan beauty that he dates his birth. It was the middle period of the age of mammals, known as the tertiary, and the grandeur and glory of the strange sight would bewilder the eye could we behold it; parallel. Graceful and



SKELETON OF MASTODON GIGANTEUS.

counter struck another massive bone. In bulk it was like the decaying stump of an ample pine. It proved a stumbling block to the indignant Hodge, and he contemptuously hurled it into the ditch, whence it has not yet been recovered.

The discovery of the skeleton was a matter of small account to the good folks about Highgate, but, through the medium of a travelling showman, the story reached the ears of Mr. John Jelly, of Shelburne, John has dabbled a little in natural history and geology, and his curiosity was excited. He took an active part in the finding of a mammoth on Mr. W. B. Jelly's farm, in the Township of Amarant, last summer—the matter was fully reported in THE GLOBE at the time—and he and his nephew, Mr. W. A. Hillhouse, soon found that the facts were as represented by the showman. Mr. Jelly lost no time in acquiring possession of all the bones found four years ago, and the right to search for whatever further remains there might be in the field. He and his

abundant would be the serried vegetation. It was probably the last period preceding the epoch of historic man, but man himself may have been coeval with the mastodon here. The temperate zones were still embellished by tropical forms of plants and flowers and trees. Louis Figuier, a high authority, speaks of this age as containing 212 species of rich flora and the giant ferns and palms so characteristic of the epoch that had gone before were fast disappearing. The great conifers were conspicuous in the forests, and the continents were assuming their present forms, but in spite of the analogy of the vegetation it does not appear that there was a single species of the period identical with any growing now. There was a continuation, in fact, of the characteristics of the carboniferous period, and from some cause a submergence of the land under marshy waters. This is what gave birth to the sort of coal that we now call lignite—an imperfect coal, differing from that of the carboniferous or true coal

measure period. The difference is attributed to the fact that it is of too recent date, and because it has not been subjected to the same internal heat, accompanied with the same pressure of superincumbent beds. These lignites are the remains of the buried forests of the ancient world, and the peat mosses, are, too, the products of the decaying vegetable matter. Among the feathered tribes the vultures and the eagles were the leaders of the rapacious birds, and pies, paroquets and jungle fowl predominated in the other genera. Whales and dolphins were the marine fauna. The species of molasses found in this age were peculiar to the period. They were very numerous, but different from what had gone before and what has followed since.

It has been an oft contested question whether man first appeared on earth's surface in the miocene or succeeding epoch, but on this continent, at any rate, it has been fairly well established that man was contemporary with the mammoth and the mastodon, and he is believed to have assisted in destroying these gigantic mammals, as well as the Siberian rhinoceros, the cave bear and the cave lion and the Irish elk. "From the moment," says Dr. Garrigan, "that mammals of so perfect organisation as mastodons, lions and hyenas could live in the miocene air and

longest rib—and nearly all the ribs have been found—is 51 inches long, and has a circumference of 10 inches. The lower jaw, the inferior maxillary bone, which is in a splendid state of preservation, measures 6 feet round from the one condyle process to the other, and the width of the jaw is 22 1/2 inches. One of the nasal bones, which is tolerably well preserved, is 2 feet 1 inch long, and the olfactory channel is 11 inches by 3. The joints of the vertebrae are like the hoofs of a draught horse, and the channel of the spinal column would form a bed for a three-inch water pipe. The length of the animal gauged by the measurements of the bones already found, and allowing for those that have not yet been discovered, is from the point of the nostril to the root of the tail about 22 feet. This is greater than that of the celebrated mastodon giganticus discovered near Newburgh, New York, in the summer of 1845, and the skeleton as a whole is larger and more complete than any that has been found in Kentucky, Ohio, Missouri, California or Oregon, where the remains have been in greatest abundance.

What led to the extinction of the mastodon is one of the unsolved problems of nature. It could hardly have been the climate, for it lived through climatic changes greater than any that now exist,



APPEARANCE OF CONTEMPORARY MAN.

adapt themselves to the climate, which their presence indicates to have been healthy—from the moment in which, as M. Lartet has shown us, the ape was co-existing and developing along with these mammals, why should not man have lived as their contemporaries.

It is worth mentioning in this connection that there have been many discoveries of human remains and works of art in the gold-bearing drift of California, and in not a few instances in conjunction with the bones of the mastodon. This would indicate that in that State at any rate man was coeval with the mastodon. Professor Whitney, an eminent geologist, says that the elephant and the mastodon are found all over the State at the surface and at a depth of 100 feet, and it is very common to find with them human implements. Human skulls and weapons of bone and stone mortars have been found in the auriferous gravel or gold dust from 200 to 300 feet below the surface, along with the bones of the mammoth or mastodon. An American scientist, Mr. J. P. McLean, author of a Manual of the Antiquity of Man, says, in a work relating to the mastodon, that "it lived for untold ages, and it has become extinct. In Europe it ceased to exist long before the historical period—probably 300,000 or 400,000 years. In America it survived until a comparatively recent period."

It is thus left to conjecture whether the red man hunted, amongst the curious trees, the strange birds and beasts that were the habitants of the shores of Lake Erie when this mastodon began his long rest. We know that the Eries and the Oneidas have peopled the district for untold ages. Not far distant is the Moravian reserve where about 300 of the latter tribe still live under Government protection. The Eries, as we all know, were exterminated by the French in the seventeenth century. Within a very few miles of this spot the brave Tecumseh fell fighting with his 500 Indians against 4,000 Americans. It is a strange fact that these antediluvian bones which have lain in that peaceful sepulchre during all the centuries that the red man has run his course, with his scows and his squaws and his wigwags, are now in a better state of preservation than those of the men who fell at Moraviantown in 1812.

The number of the varieties of the mastodon has been variously put down at from 4 to 30, these differences being based upon some slight modifications of the teeth. The whole of the teeth of this monster, eight in number, four in the upper jaw and four in the lower, have been found complete, with this exception that the great conical tuberosities or rounded process have been worn off. They are composed of dentine and enamel, and the lower parts are as fresh-looking as those of any living animal.

and all that can be said with truth is that it succumbed to some imperceptible hostile influence which first made it rare and then finally exterminated it. The mastodon and the elephant have been known to live through two epochs of the world's history before the mammoth with his hairy, shaggy coat became their contemporary.

With regard to this animal, Oliver Goldsmith, in his Animated Nature, makes the very remarkable and, in the light of recent discoveries of science, very amusing statement:—"As yet this formidable creature has evaded our search, and if indeed such an animal exists it is happy for man that it keeps at a distance, since what savage might not be expected from a creature endowed with more than the strength of the elephant and the rapacity of the tiger."

But the red man after all is accredited with the most extraordinary of all statements that have yet appeared regarding the monster. According to Peake—and I would here observe, by way of parenthesis, that, not having been present at the interview when that writer obtained his information, I cannot vouch for its accuracy, and no one will be blamed by me should he regard it as a critical world came to regard Macpherson's version of the poems of Ossian—this is the Indians' solution of the mystery of the mastodon: Ten thousand moons ago, when naught but gloomy forests covered this land of the sleeping sun—long before the pale men with thunder and fire at their command rushed on the wings of the wind round this garden of nature, when naught but the untamed wanderers of the woods and men as unrestrained as they, were lords of the soil, a race of animals existed huge as the frown of the precipice and cold and bloody as the panther, swift as the descending eagle and terrible as the angel of night. Pines crashed beneath their feet and the lake shrank when they slaked their thirst, the forceful javelin in vain was hurled, and the barbed arrows fell harmless from their side. Forests were laid waste at a meal. The groans of expiring animals were everywhere heard, and whole villages inhabited by man were destroyed in a moment. The cry of universal distress extended even to the region of peace in the west, and the good spirit interposed to save the unhappy. Forked lightning, gloomy rain, loudest thunder, wrecked the globe, but the bolts of Heaven were hurled upon the cruel destroyers alone, and the mountains echoed with the howlings of death. All were killed except one male, the fiercest of the race, and him even the artillery of the skies assailed in vain. He ascended the bluest summit which shades the source of the Monongahela, and, roaring aloud defiance and vengeance, he at length, maddened with fury, leaped over the wings of the forest, and at this moment reigns the uncontrolled monarch of the wilderness. Mr. Jelly intends exhibiting his treasure



IDEAL LANDSCAPE OF THE MIOCENE PERIOD.

They are eight inches long, and rather more than three inches and a half broad. The structure of the teeth indicates that they have served admirably for the grinding and mastication of tough, hard vegetable substances. The bones are of a brownish color like those of a recent human skeleton. A broken piece of one of the tusks measures about nine feet eight inches. In its complete state it must have been from twelve to fourteen feet long. It is slightly curved, and its circumference at the thickest part is 24 inches. It is partly by the tusks, as well as by the teeth, which have enough mammalations on the surface like those of living elephants, that the mastodon is distinguished. Some mastodons have been found with four tusks, two projecting upwards and two downwards, but the lower tusks never reached any great length and were generally shed early in life, those of the female especially so. This one was evidently possessed of only two. These are some of the bone measurements: Hind leg, from the thigh to the knee joint, 47 inches; circumference, 35 inches; two fore leg bones—the humerus—from the shoulder blade to the knee joint, 3 feet 4 inches in length and 3 feet 4 inches in circumference. The atlas joint upon which the head is set has a breadth of 18 inches. The shoulder blade measures 3 feet 2 inches by 2 feet 1 inch in the widest part. The

through the Province in due course, and submitting it to the judgment of scientific men. The exhumed bones were photographed with considerable success on Wednesday last in the presence of a group of local men who have evinced a warm interest in the discoveries. Amongst the party were Mayor Dart, Ridgeway; editor Mackay, Ridgeway; Dr. McPhail, whose anatomical knowledge has been of great service to those who have been following up the discovery. Mr. John Jelly, Shelburne; Mr. Wm. Reburn, Shelburne; Mr. T. Boden, Ridgeway; Mr. W. A. Hillhouse, Shelburne; Mr. A. Sampson, schoolmaster, Highgate; Mr. John Reycraft and Mr. Wm. Reycraft. J. H. T.

—There are 38 newspapers published daily in the City of New York.

—C. V. Boys, an English scientist, has solved the problem of measuring the moon's heat. By means of a thermopile composed of quartz filaments, which can render sensible the heat of a candle up to a mile and three-quarters, he has been able to demonstrate that the warmth from the moon's reflected light is equal to that given out by a candle twenty-one feet distant. Mr. Boy's thermopile would find much more warmth than in the average honeymoon.

SOAP



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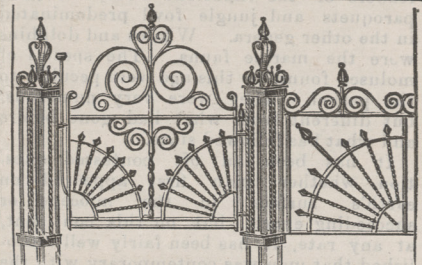
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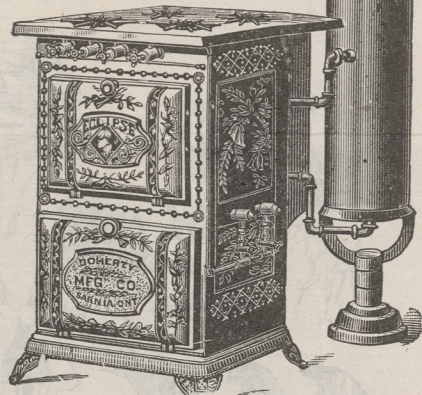
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OUR GRAND OLD MAN.

What Oliver Mowat Has Done for Ontario.

HOW THE PROVINCE STANDS TO-DAY.

A Glance at the Mowat Government's Great Record.

SOME OF ITS LEGISLATIVE ACHIEVEMENTS—ITS HONEST ADMINISTRATION OF FINANCES—ITS NOBLE DEFENCE OF PROVINCIAL RIGHTS—THE PERSONALITIES OF THE DIFFERENT MEMBERS OF THE CABINET—MR. MOWAT'S VIGOR DESPITE HIS SEVENTY YEARS—THE ABILITY OF HIS COLLEAGUES.

MR. MOWAT became Premier of Ontario in October, 1872, hard upon 18 years ago. Governments elsewhere in Canada, elsewhere all over the English-speaking world, have come and gone; more than half a generation has passed away; hundreds of Ontarians who were then prattling infants are now stalwart young men and will cast a vote at the impending elections—and in May, 1890, Mr. Mowat is Premier of Ontario still. His record is a wonderful one indeed, not equalled in the whole history of British Parliamentary government.

Mr. Mowat was 52 years old when he became Premier. He is now 70. Four times the people of Ontario have renewed the confidence first reposed in him in 1872. The general elections of 1875, 1879, 1883 and 1886 have passed quietly over him. His strength and popularity never have

been developed, when great cities stand upon its rivers and lakes, when railways and steamers have opened up for settlement the uttermost parts of it, when the products of its mines are being turned into manufactures on the spot, when the millions of its population constitute the heart of the great nation that Canada is to be, still will the sons of Ontario remember gratefully the name of Mowat, the man who fought so long and so hard in the teeth of such virulent abuse, such odds of power, such desperate opposition without the Province and such traitorism within, for the preservation of the half their Province from hands in which its resources and riches would have laid idle and wasted, or been ruthlessly scattered to the four winds of heaven by the policy that produces such blotches as Ryktertism on the face of Canadian politics.

Alone for this tremendous gift to Ontario, let it be repeated, Mowat deserves well of his country, and will go down to posterity as one of our greatest statesmen, patriots and lawyers.

But this but begins the brilliant record of his doings for the past eighteen years. Scant justice can be done such a record in the limited space of a newspaper article. The condition of the Province speaks for itself.

Where in the world are there 2,000,000 of people as well off in every respect in which they are affected by Provincial legislation as are those of Ontario? Not on this continent, and not in the old world. Nowhere are the facilities for obtaining a good education so great. That of itself is a most potent factor in the upbuilding of a nation; upon the character of the education of the youth of Ontario depends largely the future of the Dominion, of which our noble Province is the heart. Our educational system has grown up gradually, the most modern methods having been successfully introduced into every branch of the system. Government aid to schools has risen from an average of \$167,540 during the Sandfield Macdonald period to a yearly average of \$255,818 during the Mowat regime, and aid to poor schools and High Schools has increased in equal proportion. The establishment of a second Normal School, of five training institutes for High School teachers, of 53 County Model Schools for training third-class teachers, of art schools for teaching mechanics and others drawing and the elements of industrial design, of 66 properly organized teachers' associations and of over 100 additional mechanics' institutes, all since the Mowat Administration has had charge of the education of the youth of Ontario, are but slight indications of the activity that has ever since reigned in the department. Another most substantial benefit brought about by the Mowat Government, both to the cause of education and to the pockets of the school children's parents, is the unification of the system of text books, which has been chiefly accomplished since 1883.

If we look to another branch of the public service, that of the Crown Lands Department, what do we find? Nowhere is there a land which has had its natural resources so strictly guarded, so carefully fostered, made annually to contribute handsomely to the revenue, yet leaving in the bank, as it were, the tremendous capital of \$135,000,000—such is the estimated value of the timber alone, to say nothing of the minerals, of old and new Ontario.

What country has its liquor laws under such rigid enforcement? Where have the principles of temperance guided legislation more absolutely and beneficially than in Ontario? Where else will be seen such a step in the direction of temperance as is found in the fact that between 1874 and 1889, in spite of the large increase in the population of the Province, the number of licenses issued fell off by over sixty per cent. Here are the figures:—In 1874-5 there were issued 4,793 tavern licenses, 1,307 shop licenses, 52 wholesale licenses and 33 vessel licenses—a total of 6,185. Last year the total was but 2,485, in spite of the reaction in some districts consequent upon the repeal of the Scott Act. It was made up as follows:—Tavern licenses, 2,056; shop licenses, 536; wholesale licenses, 26, and vessel licenses, 17. The best authorities on the question of temperance admit that the amount of intoxicating drink consumed diminishes as the number of places where it can be obtained decreases. This desirable result has been obtained by the progressive temperance legislation of the Mowat Administration. In no country are the liquor



HON. C. F. FRASER.

been impaired, and to-day, in the eighteenth year of his administration, and the seventieth of his age, he stands forth with a record unsurpassed in the history of Canadian statesmen for the number and brilliancy of his achievements, the purity of his private life, the incorruptibility of his official career, the soundness of his Liberalism, the steady consistency of his entire political course, and the marvellous success with which he has met and defeated the most ingenious and desperate devices that bigotry and boodle could invent or promote. Mowat's achievements rank him among the first of the great men of Canada, include him in that brilliant galaxy of Canadian statesmen whose names and lives form one continuous stream of brilliancy and purity in the political history of our country—Baldwin, Latontaine, Brown, Mackenzie, Blake, and latest, not least, the present talented, silver-tongued, high-minded leader of the Dominion Liberals, Wilfrid Laurier. With these names that of Oliver Mowat is inscribed indelibly on the pages of Canadian history and on the hearts of the Canadian people.

What has Mowat done for Ontario? Rather, what has Mowat not done



HON. G. W. ROSS.

for Ontario? What man but Mowat ever gained a kingdom through the law courts? Who but Mowat could have secured for his Province a magnificent territory of a hundred thousand square miles, abounding in mineral wealth and agricultural resources, a great country of itself, twice the size of all England, and capable of sustaining millions of prosperous citizens? Had Mr. Mowat done no other act but this for the benefit of Ontario, his name would still have been inseparable from the history of his Province. Wars have raged a hundred times, kingdoms have been wiped out and empires shattered time and again in the history of the world over territory a tenth the size and a hundredth the value of our great new Ontario. Generations hence, when its resources