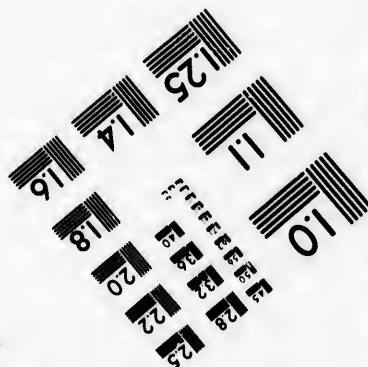
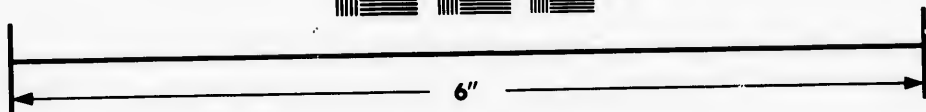
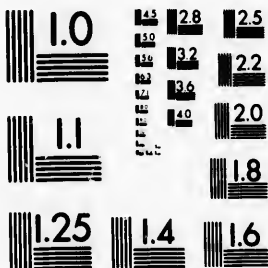


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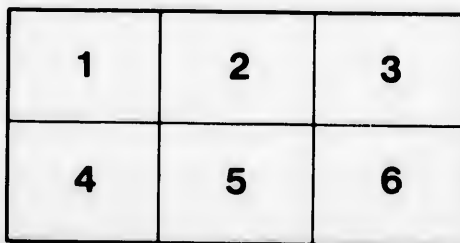
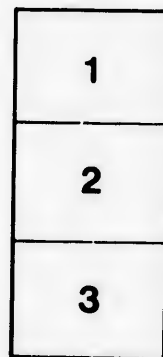
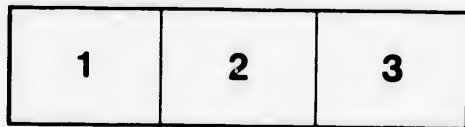
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THE NEWER PARTS OF CANADA.

BY CYRUS C. ADAMS.

WHEN Sir George Simpson, Governor of the Hudson Bay Company, testified in a British court that the prairies of Manitoba were unfit for human habitation, few people ventured to differ from this sage conclusion. The Canadian Northwest was the congenial stamping-ground of hunters and trappers, for most of the finer furs of commerce were found there; but no one supposed a large part of this vast region could produce the best of wheat, fatten cattle and sheep by the million, and support a numerous and prosperous people. The fact is, the exploration of the northern half of this continent is still in its early stages. Until three years ago there had been in Canada no scientific exploration north of Great Slave Lake except along the Arctic coast. Each annual report of the Canadian Minister of the Interior, every map and vol-

time issuing from the Geological Survey, is to a considerable extent, a record of original discovery. Many a page is as entertaining as any book of travels and many a year will yet elapse before Canada and Alaska will cease to give us fresh geographical news.

Few people realize the immense labor involved in the thorough study of a new country. Mr. Herbert Ward, who was here from the Congo recently, said that though several hundred white men have lived for ten years past in various parts of the great basin, very little is yet known of the Congo region. When a committee of the Canadian senate, two years ago, gathered all the information they could collect of the great Mackenzie basin, they reported that much of the northern and eastern portion was as little known as the interior of Africa. What a rich opportunity this little-known country is affording to the able and enthusiastic explorers of the scientific bureaus at Ottawa! Here is one of the interesting surprises to which they have treated us.

Some old maps used to show a low range of mountains stretching east and west for hundreds of miles west of Lake Athabasca. If you happen to visit that region on a vacation tour you will look in vain for those mountains. You will find instead an almost illimitable prairie stretching away to the horizon, not in gentle undulations as in Minnesota but as level as a floor. Suddenly a surprising thing will occur. A moment before, you saw nothing but the boundless, verdant sward; the next, without the slightest warning you find yourself standing on the edge of a mighty gorge. Seven hundred to a thousand feet below flows a water-way, a half-mile wide, and the old trappers, paddling up the noble Peace River, looked at the sandstone cliffs far above and called them mountains. If they had had the spirit of the explorer they would have climbed to the top and seen at a glance that they were in a prairie land through which this great chasm has been cut. Some day steamers will float on this wonderfully crooked water-way and they will carry tourists for seven hundred miles from the foot of the Rocky Mountains along this very deep and narrow valley, through which meanders the great stream that is unique among all the rivers in the world.

There are a number of novelties for North American tourists that must be sought alone in Canada. Our alpine regions among the

Rocky Mountains where great glaciers descend for thousands of feet to the lower valleys can be found only north of the international boundary. In time, when the tourist wants the exhilaration of a trip through the Rockies by small boat, he will make his way to the head waters of the Peace River west of the mountains, and for nearly seventy-five miles he will float down the stream, amid the grandest of scenery, the mountains towering above him 5,000 feet on either hand, and all the way he will meet with only one or two small rapids to add a little excitement to the trip. He will not, however, venture into the rapids by which the river, emerging from the mountains, drops to the plain below; for in ten miles the river tumbles a thousand feet and is very grand and turbulent before it enters its narrow gorge and assumes a placidity befitting its name.

By using the steamers which the Hudson Bay Company within a few years has launched upon the Athabasca and Mackenzie Rivers, one may now travel from New York City to the Arctic Ocean along interior routes, carried all the way by steam except for about 335 miles. He will travel by rail to Calgary on the Canadian Pacific, thence 270 miles by wagon to Athabasca Landing where he can take a steamer for over 200 miles to the Grand Rapids of the Athabasca River where sixty miles of land portage are required. At Fort McMurray, the foot of the rapids, a steamer has been running for six years down the river to Lake Athabasca and into the Slave River, to the second and last obstruction, five rapids close together. Below these rapids another steamer has been plying for six years and there is no further interruption of navigation in the 1,037 miles down the Great Mackenzie River to the sea.

In all this vast country from the the Saskatchewan River to the Arctic Ocean our knowledge is confined chiefly to the rivers and the great lakes. Explorers, missionaries, and agents of the Hudson Bay Company know very little of the enormous areas stretching between the water courses. The future will fill the maps with numberless details now wholly lacking; but in broad outline we know the characteristics of the country and they may be very briefly described.

Draw a line from near Cape Bathurst on the Arctic Ocean, almost exactly south-east to Fort Churchill on Hudson Bay. All the country east of this line is barren ground,

utterly worthless, it is believed, save for its fish and furs. West of this line is a broad belt of country including all of Great Bear Lake and generally bounded on the west by the great chain of lakes extending from Great Slave Lake to Lake Winnipeg. This is the wooded belt of the Canadian Northwest, containing much spruce, tamarack, and sub-arctic trees, a rocky and swampy area with some regions of good land. Between this region and the Rocky Mountains is another great belt quite narrow in its northern part along the middle Mackenzie but very broad at its southern limit, the northern branch of the Saskatchewan. This is an area of great plains with considerable timber, and a large extent of the country some day may be valuable for pasturage. Then south of the North Saskatchewan, extending from the Red River valley to the Rocky Mountains, is a land of prairie and plain, one of the finest wheat growing and grazing countries in the world. The general characteristics of most of British Columbia are those of the wooded belt above referred to, and here and there all over the country between the lakes and the Pacific have been found riches in the shape of petroleum, coal, and gold which have developed into or bid fair to become large sources of wealth.

It really is amusing to see the changes that Canada's surveyors and explorers have been making in the maps of twenty years ago. They have been finding new water-ways and changing the courses of the old ones. They have whittled off parts of that wonderful system of lakes and added other parts which once figured as dry land. Lakes as near civilization as Lake Winnipegosis in Manitoba have taken on quite a different appearance, and Lake Mistassini in the Canadian Northeast, once reported almost to rival Lake Superior in size, has been forced to abate its lofty pretensions and now cuts a very humble figure. Within the past three years, Dawson and others have made a running survey of over 100,000 square miles of territory along the head streams of the Yukon, hitherto a *terra incognita*, and Ogilvie's conclusion that the gold diggings on the Yukon are in Canadian instead of Alaskan territory was interesting reading for us and hastened the sending of our expedition which is now locating the 141st meridian, the international boundary line.

We cannot describe here the many notable

explorations recently carried out by the Canadian Geological and Land Departments; their studies in the region between Hudson Bay and Lake Winnipeg, showing the uselessness of that country; their complete surveys of the Frazer, Athabasca, and Churchill Rivers, the mapping of the Cariboo mining district, where much of the country is so rough that pack animals cannot enter it; the exploratory labors east of Hudson Bay; and other important enterprises; but all students of Canadian exploration are grateful for the invention of dry plates in photography, which have enabled the government to embellish its geographical reports with striking and beautiful pictures from regions almost unknown. "No record of exploration," says a report of the Interior Department, "is now considered complete unless it is accompanied by illustrations." Canada also is using the camera in a very interesting way to facilitate her explorations in the Rocky Mountains.

The government is mapping this tangle of lofty summits, and all Alpine clubs and devotees of mountain climbing have been greatly interested for three years past in the graphic reports of these surveyors. Their scrambles above the snow line, clambering far up the slope of great moving glaciers, their toilsome progress as they cut their way through dense underbrush or crawl along the edge of dizzy precipices, their little mishaps, sometimes ludicrous, as when a pack-horse rolls hundreds of feet down the side of a cañon and is found wedged between two trees not at all hurt but painfully astonished, and above all, the splendid panoramas they see upon which no human eye ever rested before, and the order they evolve from this jumble of ranges, spurs, and valleys, have made the Canadian survey of the Rocky Mountains, still in progress, one of the most interesting of recent geographical studies. Now the usual processes of topographical surveying are far too expensive in this difficult and for the most part uninhabitable region, where the aim of the survey is chiefly to perfect the map. Using triangulations, therefore, as the basis of the map, the surveyors work in the topographical features by means of photographs taken on mountain peaks. This process has been used for some years in the Alps at about one-tenth the cost of the ordinary methods of topographical surveying.

Nestled among the mountains are lovely lakes, some of them thirty or forty miles long,

hot springs here and there, one of which already is famous for its medicinal properties, and water-falls tumbling down the mountains for hundreds of feet. The region of the Fraser River is of peculiar grandeur and beauty. Gazing from afar at a noble cone, now known as Lookout Mountain, the explorers saw a long, white streak down its rugged side. They found it was a magnificent cascade, its waters lashed to snowy whiteness, and dashing for three thousand feet down the steep slope. These placid mountain lakes are full of trout, and the great hills that tower from 3,000 to 6,000 feet above them are mirrored in the waters. Mr. Peary, the American traveler on Greenland's inland ice, thinks there is no air in the world like that he breathed on that wonderful ice plain 7,500 feet above the sea; but draughts of Rocky Mountain oxygen lose none of their health-giving quality by adding the aroma of fir and hemlock. Deer and black bear are numerous, grouse abound, and goats and Rocky Mountain sheep clamber far up the mountain side. Tourists, hunters, and invalids already are making their way to this new resort for health and recreation; and among these picturesque lakes, romantic rivers, and grand mountains, a large district has been set apart for the National Park of Canada.

A force of men are constantly at work making roads and bridle paths to the numerous points of interest in Canada's big pleasure resort. The National Park is about 500 miles north-west of our own great Park. It is on the Canadian Pacific at the eastern edge of British Columbia, and though it never can rival our Yellowstone Park in natural wonders, it is destined to be one of the famous breathing spots of the continent. Bridle paths lead up the mountains from whose tops magnificent panoramas unfold. Picturesque bridges span the Bow and Spray Rivers, and from the Bow bridge one sees a noble river shooting past at twenty miles an hour before it plunges over the falls. Here is an interesting cave, and hot and sulphur springs, whose waters are led by conduits to various sanitariums, and high up in the mountains is a natural basin full of tepid water where many a visitor takes a plunge; and a few hours steaming, over the crests of the Rocky Mountains, lands the visitor among the wonders of the Selkirk range. He leaves the train at the very foot of one of the greatest glaciers in the Temperate zones.

Fancy a river of solid ice about 500 feet thick, stretching up the mountain for nine miles with a width of a mile to a mile and a half, moving down the slope in midsummer, over a foot a day, with immense moraines along the sides and front where quartzite blocks, weighing many tons, have been pushed ahead or swept aside, and you have a faint picture of the Great Glacier of the Selkirks. It is believed no Indian ever visited these mountains, and the Selkirks are still imperfectly explored, though we know many of the mountains are almost uniformly about 10,000 feet high, that above 7,500 feet the rugged peaks are clad in perpetual snow, and that scores of glaciers push down the slopes to the forest region. It was an interesting discovery that our mountain climbers may find, at home, opportunities for adventure above the snow line, rivaling those of the Alps and the Caucasus. Our chief authority on the Selkirks is the explorer Green, the first to climb Mount Cook in the New Zealand Alps. He calls the Selkirk region, "one of the loveliest districts on our planet," though he had some tribulations there induced by a bucking mustang to whose back the scientific instruments unfortunately had been confided. In a paroxysm of bucking, the animal dashed the theodolite, the prismatic compass, and other instruments to the ground, and then added insult to injury by rolling on the débris. When Mr. Green explained to the Royal Geographical Society of London why he could not return the costly instruments it had loaned him, he convulsed that learned body.

But notwithstanding Canada's activity in the field of explorations, the work has only just begun. A recent report of the Geological Survey says that very little precise knowledge has yet been obtained of large districts even in Manitoba. The large colony of Icelanders who recently found new homes between Lakes Manitoba and Winnipeg settled in part upon still unsurveyed lands. As a rule, however, the land surveys have kept far in advance of settlement, and there has been a great decrease of field work since 1887, as the Government sees no reason for staking out the farming lands many years before pioneers will occupy them. Recently, land surveys have been far more actively pursued west than east of the Rocky Mountains until at last they cover the whole of the lands taken up by settlers in British Columbia.



Interesting discoveries as to the resources of this vast country have crowded fast upon one another. The world talked long of the rich new wheat lands of the Red River Valley and the Saskatchewan; but it never seemed to occur to any one that the great plains farther west, to the Rockies, where millions of buffalo had roamed, were admirable grazing lands. That discovery was made later; cattle raisers flocked into Alberta with their herds, and ranches are still multiplying. Then, as the surveyors pushed up along the east side of the Rocky Mountains, they were surprised to find that there seemed to be no limit to the northern extension of the arable and pasture lands, influences from the Pacific warming the winter air.

Then along and near the line of the Canadian Pacific as it approaches the mountains, rich coal fields, both bituminous and anthracite were discovered. The Canadian Northwest, though not well furnished with timber, doubtless could supply the whole continent with coal for centuries to come. In the regions of the Belly and Bow Rivers alone, it is estimated by the Geological Survey that there are about 800,000,000 tons of good coal; and farther north, at Edmonton, the citizens are supplied with the product of their own coal miners at a cost of less than three dollars a ton. Canadian anthracite has been sold in the California markets.

The discovery of large areas of petroleum basins was reported several years ago in the Athabasca region. Comparatively little is known yet of the value of these finds or of the extent of Canada's coal supply. Professor Dawson, of the Geological Survey, thinks the oil district comprises nearly 150,000 square

miles. The whole world will be interested in the expedition headed by Pennsylvania experts, which the Dominion government is now fitting out to explore the oil regions. Another scientific expedition which will start this year has the mission of studying the resources of the Great Mackenzie basin and suggesting the best means of preventing the extermination of fur animals.

The newer parts of Canada are a country of the future, for their resources have not yet been carefully studied, much less utilized. The hardy yeomanry who are planting civilization in these former wilds have suffered for several years from early frost and blighting drought. Far north, along the Northern Saskatchewan, many a farmer is freighting on the road and almost despairs of ever seeing that long promised railroad which was to bring his wheat field within reach of markets. But it takes years to lay even the foundations of so great a social edifice as the Canadian Northwest is destined to become. The railroads will be built and plenty of them. Progress and growth are apparent everywhere. Already the colonies outside of Manitoba, weary of the régime of the mounted police and the Council at Regina, are petitioning the parliament at Ottawa for separate provincial governments. Manitoba and Assiniboia have raised 13,000,000 bushels of wheat in a year, and on the plains of Alberta, which no white men save a few hunters had seen twenty years ago, 150,000 cattle are grazing. There can be no doubt of the bright future of a country, whose resources are so ample, whose climate invigorates both mind and body, and whose enlightened people are so ambitious to achieve success.

