

IMPORTANT DISCOVERIES IN THE NORTH WEST.

DURING the summer just closed good work appears to have been done by the geological survey in the Lake Superior region. Professor Bell's party have all returned to their winter quarters, after having experienced many of the hardships and privations incident to the life of the first explorers in the distant wilderness. We understand that the results of the expedition include a complete topographical and geological survey of Lake Nipigon and an exploration of much of the surrounding country. This lake, it appears, will rank in point of size with the other great lakes of the St. Lawrence, forming the sixth and last in the chain. Professor Bell has not yet been able to map the whole of his extensive survey, but thinks the area of Lake Nipigon will be found to exceed that of Lake Ontario, or even that of Lake Erie—some 500 miles or more of the coast line having been traversed. This great lake is drained by the Nipigon River, or upward continuation of the St. Lawrence beyond Lake Superior, which is described as a very large clear-water stream, about thirty miles in length. Upward of a dozen rivers of considerable size are reported to empty into Lake Nipigon from all sides. We understand that one of the most singular features in the geography of this beautiful lake, is the immense quantity of islands which are scattered throughout its whole extent, and presenting a great variety in size, form and elevation. It appears that geological discoveries of a highly interesting and important nature have been made, and that, contrary to common belief, a large extent of level land, with deep and fertile soil, exists in the Nipigon country. Prof. Bell had received instructions, in addition to his geological explorations to obtain as much information as possible in regard to a route to our great Western territory, and his discoveries in this direction are, perhaps, not the least important of the results of the expedition. If we are not mistaken he has found that this country, so far from being a difficult one, offers great facilities for railway construction. Further, he has, we believe ascertained that the elevation of Lake Nipigon above Lake Superior is very moderate, and consequently this lake may be found useful for the purpose of navigation in the desired direction. It will, of course, require considerable time to elaborate for publication all the geological data obtained upon this survey, but it is to be hoped that a special report on the engineering capabilities of the country will be obtained as soon as possible, since it is so desirable to have all the information available before adopting any route.—*Toronto Globe*.

THE OIL REGIONS.

THE Bennett well, situated west of the Reliable, is doing 20 brls daily.

Mr. Lacey's three wells have, during the past week, fallen off in their production, but may be credited with 100 to 200 brls daily.

The Kerby & Wallen No. 1, and Putty wells are pumping about the same as usual, 23 barrels per day; and the Big Injun, 18 brls.

The Loughhead & Tyler wells, owned by Mr. J. D. Noble, are still producing well.

From Mr. John Marland we have the shipments from both during the past week, viz.:—12 tank cars of 86 brls and 82 galls capacity each, and 2 car loads barrelled. This would bring their week's production about 560 brls, but during the week the Tyler well was only working four days.

The new Loughhead well still progresses downward without misadventure.

Lancaster's No. 1 is doing about 20 brls, and his No. 2 would doubtless prove a good well, were it not that the sand pump is at the bottom, and persists in stopping there.

W. H. Garvey's old well averages 34 brls daily, and this is no guess work, but taken from the proprietor's account of actual sales and shipments, we are disposed to call it one of the best paying wells in that territory.

The McGarvey & Draper, near by, has turned out a complete failure, but Rolston's & McGarvey's new well is reported by all who have seen it a splendid strike. The proprietors claim that its production reaches 80 to 100 brls, and that last week it pumped 120 brls inside 28 hours.

The Lindsay well has changed hands during the past week. Messrs. Stevens & Walters sold their half interest in the property to Mr. E. Johnson, of Woodville, he paying therefor the sum of \$3,000. The well has improved considerably of late, owing no doubt to their replacing the old and worn out pump valves with new ones. The average may be safely estimated at 40 to 50 brls daily.

The Hilledale well owned by the company of that name, and managed by Mr. Blackmar, is pumping 15 brls daily. We understand it is the intention of the company to put down several new wells and push the work of development with vigor.

The Capt. Tyler twin wells, situate at Pithole, average together 15 to 20 brls, and Dr. Ball's old well 8 to 10 brls daily.

The Stokes Brothers new well is as yet untested, and opinions seem to vary greatly in regard to the indications.

The Great Britain and Ireland is one of the good wells, averaging 40 to 45 brls daily. The same may be said of the Lawson well both as regards stability and amount of production.

McKenzie & Sanson's two wells, the Miller and Dore, were doing nothing last week.

The old Putnam well, owned by Peter Taylor, Esq.,

is only working by jerks, and averages during the jerks 8 brls.

The McDougall well is doing about her usual quantity, 60 brls daily. This well owes her splendid production in a great measure to "Mr. Good Luck," and although the pump tubing has not been withdrawn for the space 12 months, she still continues to produce without let or hindrance.

Noble No. 4 next door to the last, is working for 15 brls daily, and the Daniels well in the Northwest territory produces 10 to 15 brls daily.

The Lady Fair has got into trouble, and as it would be scarcely the delicate thing on our part to enquire into the cause of her ailment and then make it public, we shall defer any remarks on her situation until she is comfortably convalescent.

The King No 1 and 2 wells have been sold during the past week to Messrs. Marshall, Goodrich & Rosenberg. The price was \$8,000 in cash, and the sale includes the two wells with everything connected with them above ground, also the eight acres of land surrounding. These wells are capable of producing, together, 65 brls daily.

The Marshall & Goodrich No. 1 is pumping 35 brls. No. 2, 40 brls, and No. 3, 60 to 65 brls each day. The low estimate of the production of the latter well, may be ascribed to the shutting down of several wells in the vicinity, so that this well which works continuously, has to pump far more than her share of water.

The Lincoln well pumps only 6 brls, and the high well 25 brls daily.

The Defiance (what a defiance, to be sure!) has had to succumb to 12 inches of snow and a cap full of wind. However, as soon as the present spell of weather subsides she will doubtless defy, again. She has good shows.

The Dunlop & Polly produced last week from 180 to 200 barrels. The Perkins well 50, and Perkins & Ward's new well only 5 barrels daily.

The Holden well, owned by Mr. Davis, pumped last week from 8 to 10 barrels per day; the Coryell well 8 barrels; Frank Smith No. 1, 15 barrels; the P. Taylor 6 to 8 barrels; and the Western well, owned by Messrs. Jones & Davis, 20 barrels.

Hartford Starr, No. 6, is still pumping about 25 barrels; the Lick well, No. 2, 8 barrels; Messrs. Elwood & Parsons' four wells 75 barrels altogether, and the Baxter No. 2, 30 barrels.

The Swell well averages 75 barrels per week.

The Great Western well No. 1, situated South of Petrolia street, and managed by Mr. Lawyer, is pumping 15 barrels daily, and the Crescent No. 4, down on the flats, 6 barrels.—*Wyoming News Letter*.

THE PRINCIPAL GRANARIES OF THE WORLD.

THE London Times of Tuesday, in its money article, comments on the rapid increase of the importations of wheat from the United States. The most interesting question, the writer says, is the extent to which it can be kept up in competition with Russia and Central Europe, when the railways in that section are fully developed. The great questions for the United States to consider in this connection, are the reduction in freights and other charges, and enlargement of communication with the Mississippi.

Any one who will take the trouble to look at the map of Russia will find a tract of country extending northward, on the west side, to latitude 51 degrees, and on the east side to 57 degrees; southward, on the west side, to 47 degrees and on the east to 54 degrees of north latitude, containing 234,000,000 acres of the best wheat land in the world. The soil is very rich, containing all the elements requisite for cereals; is deep, and apparently inexhaustible, and has the advantage of being covered with snow from November to the latter part of April, thus protecting the tender plants from the icy winds of winter, which sweep almost unceasingly over these plains. Russia has yet another and very important advantage—cheap labor. The laborers, we have seen it stated, wear skins for clothes and wooden shoes and work for the mere pittance of about sixteen dollars a year, since they have ceased to be serfs. Taking soil, climate and situation into account, it would seem that, when the numerous railroads which have been projected shall be completed, Russia will indeed become, par excellence, the country of the world. When it is remembered, however, that our American farmers, who pay their laborers high wages, and who live in a much more costly manner, have been enabled to send their wheat over half a continent, across a wide ocean, and compete with Russia in the European markets, it is not so certain that we shall be unable to maintain a successful competition. As soon as the problem of cheap freights, from the agricultural regions to tidewater, shall be solved, as it sooner or later will be, and we return to a sound fiscal system, wheat can be laid down in Europe at a much less rate than we are laying it down at present. There is no good reason why wheat from the great granary of the Northwest cannot be transported to the seaboard at least as cheap as any Russian wheat can be from the interior, and if that can be done, we ought to hold our own in competition with that country. Besides, prices being equal, Great Britain, the largest consumer of foreign grown wheat, will be pretty certain to give the United States the preference, for the reason that she has to pay Russia mainly in gold, whereas she pays this country in merchandise. There is very little demand in Russia for iron, worked into all manner of uses, nor for cloth, nor for silks, and the thousand and one articles of luxury and taste our people call for, and for which they are willing to give their cereal and other agricultural products. Perhaps by the time Russian wheat supercedes American, our population will have so increased, and our waste lands become so settled up, that we shall require nearly all the grain we can raise for home consumption, and which will be preferable to sending it abroad.—*N. Y. Shipping List*.

THE SUEZ CANAL.

We take the following interesting particulars of the Suez Canal and its probable uses from an English paper. A great deal has been recently published about it, but nothing so clear as the narrative which follows:

The Suez Canal is nearly 100 miles in length. It runs from Port-Said, on the Mediterranean, about 150 miles east of Alexandria, in a direction at first due south, then tending slightly eastwards, to Suez on the Red Sea. Great cost and difficulty arose at Port-Said, where it has been necessary to erect two piers or breakwaters, one of two miles, the other of one and a half mile in length. As illustrating the difficulties encountered at this point, look at the facts that the very ground on which the new town stands was sea and had to be made land, and that the stones had to be artificially manufactured by compounding lime and sand, the lime having to be brought from Europe—the sand locally superabundant. One of the great dangers of the Canal—the silting up of the port of outlet by the Mediterranean sand, has already begun to be experienced. The first part of the course of the Canal, beginning at the north, is through a large but shallow lagoon called Lake Mensaleh, which has three communications with the sea through the strip of land on which Port-Said stands. The average depth of this lake is about 6 feet, but varying from 1 to 10 feet; and the plan adopted, employing enormous efforts brought against scarcely less enormous difficulties, was to dredge out a channel of the required depth, and then hem it in with two embankments rising 15 feet above the surface of the water. The Canal then proceeds through two smaller lakes, the soil of them all being very fine sand, which had to be worked through, of course under water, for about 30 miles. The next 25 miles or so are through a region of elevated sand-hills. It then passes through another small lake of the same character as the others, called Timsah—where, instead of cutting out a channel by dredging, the device has been resorted to of filling up the lake itself to the necessary level—and then through another region of sand. At this point, having completed about two-thirds of its course, the Canal enters upon the region known as "the Bitter Lakes," but which are the beds of ancient lakes, now dried up. There, as at Lake Timsah, the plan adopted is artificially to fill the beds of the old lakes with water, and to indicate the route of the Canal—i.e., the deeper part of the channel—by buoys. This part of the course is about twenty-two miles in length. The few remaining miles, about thirteen, from the southern end of the Bitter Lakes, to Suez, runs through a rocky region, which presented great obstacles in the construction, but threatens no danger in the maintenance. The difficulties of obtaining perfectly adequate port accommodation at the junction of the Canal with the Red Sea have not yet been overcome. For the latter or southern half of its course, the Canal runs parallel with and at only a short distance from the railway between Alexandria and Suez. For about two-thirds of its entire course, the Canal runs through natural water or old water-channels.

The depth is about 26 feet throughout, which will give admission to vessels of about 24 feet draught. The width is 72 feet at the bottom of the Canal, and at the surface of the water is about 327 feet for part of the route, and rather less than 200 for the other. The maximum speed to be allowed is 6½ miles, and vessels will make the passage from sea to sea in 16 hours. There are no locks, the average level of the two seas being almost the same, though there is more tide in the Red Sea than in the Mediterranean by about 4 feet—a difference not sufficient to cause any material flow for any considerable portion of the 24 hours in any part of the Canal, and, we should suppose, never affecting any part of it but the few miles between the Bitter Lakes and the Red Sea outlet. The dues to be charged are 10 francs, or about 8s., per ton and per passenger.

In considering the uses or calculating the possible profits of the Canal, two facts require to be taken into account—it will be of no very great avail for passengers, or at least for pas-