THE GODERICH SALT WORKS.

THE Hamilton *Spectator* recently printed a history of the Goderich Salt Works, from which we take the following:—

PROGRESS OF THE ENTERPRISE.

The Goderich Company at first put up a block of 52 kettles, each capable of containing 135 gallons, and yielding somewhat more than 60 barrels of salt in 24 hours, the pump working 10 hours a day and throwing a continuous stream of 600 gallons an hour. They soon however found themselves unable to supply the demand, and were compelled to complete the block by adding 53 kettles more; thus enabling them to turn out over 100 barrels of salt a day, the pump working 18 hours a day. The success of this well stimulated others to invest their means, and during the winter of 1867, another company was formed under the name of the "Ontario Salt Company." The operations of this Company were looked upon with considerable interest for the reason that their well was on the south side of the river, and upon ground 100 feet higher than that of the Goderich Company. It was besides in the immediate vicinity of the terminus of the Buffalo and Lake Huron Railway, and if the Company were successful, it established the fact that the salt deposit covered a considerable area, and also ensured peculiar advantages in the matter of shipment. They struck salt at 1 100 feet, or at almost exactly the same level as the Goderich Company had struck upon the opposite bank of the river, and at once put up the necessary block house and tank, the block containing 60 kettles with room for as many more. The bore of this well was somewhat larger than that of the Goderich Company, the tube being three inches in diameter, and pumps 15 gallons of brine per minute. Four other Companies at once started to bore on the same side of the river, and three of them completed their works early last summer. So that until quite recently five wells were at work as follows:—

Wells.	*Kettles.*	*Bbls. per day*
Goderich	104	100
Huron	120	110
Ontario	60	55
Dominion	60	55
Victoria	60	55

And there are besides the Tecumseh, the Maitland, and the Prince, wells sunk to their full depth, but in connection with which the buildings have not been erected. The peculiarity of this enterprise, is that it has been entirely local; with the single exception of one well, every dollar expended has been Goderich capital, the willing outlay of the enterprising men of that town, for the development of a most valuable and important Canadian enterprise. And when it is remembered that the average outlay on each well has been $15,000, it will be seen that a very important investment has already been made. We have given above what the wells thus far completed have actually produced, but it is worth while to look at

WHAT THEY ARE CAPABLE OF PRODUCING.

All the block houses have been so constructed as to admit of complete blocks of from 100 to 120 kettles each. With these completed each well can turn out, at the least, one hundred barrels a day, or in the aggregate eight hundred barrels. And this production is capable of almost indefinite extension. Already salt has been struck at Clinton, twelve miles south-east of Goderich, and at Kincardine, twenty-five miles north of it. So that the extent of salt producing territory is sufficient to supply any market that, under almost any contingency, can be found for it. There is more than that: there is a territory sufficiently large to ensure, under all circumstances, a healthy competition, such a competition as may be necessary to ensure for the community, cheap salt.

OTHER INDUSTRIES FOSTERED.

But it is not only in the production of salt that this enterprise is to be looked upon as important. In the encouragement it affords to other branches of industry it is the highest degree valuable. For instance, during the last year, the expenditures of one well, for fire-wood alone was upwards of $9 000, and an equal amount for barrels. Under the present system of manufacture—to which we shall presently refer, and which we hope soon to see improved—it takes sixteen cords of wood to make a hundred barrels of salt; that is at $2 50 per cord, which is the present price in Goderich, it takes an expenditure of $40 for cordwood for every hundred barrels of salt turned out, or for the present wells, working to their full capacity for even two hundred days in the year, an expenditure, for cordwood alone, of $64,000 annually. Then in the matter of barrels, which cost 30 cents each, the outlay on the full productions of those wells for two hundred days in the year would be $48,000. In addition to this about $8.000 or $10 000 for each well can be added for other expenses, so that in the aggregate the ordinary expenditure connected with these wells is close upon $200.000 a year. This affords some idea of the great importance of this new branch of Canadian industry, and the necessity for its encouragement and protection against foreign monopolies.

THE PROCESS OF MANUFACTURE.

Many of our readers, probably eight out of every ten of them, have never visited these wells, and may not be acquainted with the process of manufacture. A word of information on this point, therefore, will not be uninteresting. The wells are covered by a derrick, attached to which is an engine house, where the engine used in pumping is placed. Beside the derrick is a large square vat, elevated on posts, for the brine, which is conducted to it by troughs from the pump. These vats are kept filled with the brine, which flowing into them, resembles the finest spring water, perfectly colorless and pure. Beside the vat, the block house is erected, a large building, which in these days of volunteering, might by the uninitiated be mistaken for an unusually large drill shed. In this, at an elevation of about ten feet from the ground, the blocks or kettles are placed, the furnaces being at the end, with conductors to lead the heat under the kettles. The block consists of two rows of kettles, about thirty in each row—in the full block there are four rows, and between these is a long wooden tube into which the brine runs, and a wooden tap from that over each kettle, from which they are filled with the brine. The heat causes evaporation, and the salt settles in the bottom of the kettle, from which it is taken by long shovels and put into baskets, one to each kettle, so that the brine may run from it. When comparatively dried it is emptied into the long bins on each side of the blocks, and from there is packed in barrels, ready for shipment. The fineness of the salt depends upon the rapidity of the evaporation, so that by applying less heat a coarser salt is produced. This process of manufacture however is said to be by no means the most economical. Mr Platt has invented a new evaporating pan, instead of the kettle, and has one, on a small scale, in operation on the north side of the river, for which he is taking out a patent. This consists of a large shallow pan, with double bottom, the space between being used as a steam chamber, which affords sufficient heat for the process of evaporation. On each side of this pan are platforms, sloping towards it, and the salt is drawn on to these by means of a fine toothed hoe, the water running back into the pan. When dry the salt is drawn back into the bins, ready for packing. His contention, based upon the experience of actual work in his test pan, is, that with it he can produce a hundred barrels of salt with seven and a half cords of wood, instead of sixteen, by the system now in use. And in addition to this saving, he urges that the loss from incrustration will be much less if not altogether avoided. Whether this process will be found to be sufficiently valuable or not, must remain for practical men after practical experience to decide. But this is quite certain, that if the Goderich works are sufficiently encouraged to enable them to withstand the undue and unfair competition of a foreign monopoly such improvements will undoubtedly be made as will ensure the most economical manufacture of salt. And this brings us to the point, upon which we desire to say a few words here and will have more to say hereafter, viz: that

GODERICH SALT IS ENTITLED TO PROTECTION.

We are not disposed now to discuss the theories of free trade and protection, which so terribly trouble some of our contemporaries; that may more properly be reserved for our editorial columns. But there are a few facts prominent and easily understood that we desire to submit to the common sense and patriotism of Canadian readers and Canadian voters: and upon these they can form tolerably correct notions of what this call for protection the Goderich salt enterprise means. For 18 months after the first discovery of salt, and the practical working of the Goderich well it was sold, free on board at Goderich, at from $1 60 to $1 65 per barrel, and the demand was so great at those prices that the Company were compelled to double the capacity of their works. American salt was equally in the market at that time. According to the trade returns of 1867, the quantity of American salt imported into Ontario was about 137,000 barrels, assuming five bushels to the barrel. It is worth while stating the imports of American salt for a few years back, thus:—

	Barrels.
1864	25 662
1865	128 922
1866	140 531
1867	137,000

So that it will be seen that there was still a considerable importation of salt from the United States, at the time the Goderich salt was selling at the prices we have mentioned, showing that in ordinary times and without any ulterior motive such as we will show the American Company to be influenced by, that is the normal and fair price of salt. But then came the startling revelation "the new vein," as their agent in Canada facetiously called it, that at their own State fair they were beaten by the Goderich salt, and then came the more startling revelation of Professor Goessmann, showing that with a more approved system of manufacture the Goderich works could actually pay the American duty of 70c per barrel, and almost compete with them in the Chicago market, and they resolved to strike "a new vein" at once. It came in the form of a circular in which prices are gradually reduced as Goderich is approached, where salt is at $1 32, being $1 60 in Toronto and $1 40 in Stratford.

It takes more money to carry a bag of salt to Stratford or Goderich from Syracuse than it does to carry it to Toronto. Why, therefore, this sudden exhibition of self sacrifice for the benefit of the farmers of Perth and Huron? Another change has been made since, another reduction, and still the same extraordinary discrimination in favour of the Perth and Huron consumers. The extraordinary part of this matter, however, is that this "new vein" has only affected the price in Canada. We happen to have some old commercial circulars by us, and it is worth while quoting from them, as follows:

Chicago—May	25, 1866	$2 40
" Sept.	20, "	2 65
" Oct.	11, "	2 65
" March	25, 1869	2 60
Buffalo—April	23, 1866	2 60
" Sept	23, 1867	2 50
" April	1, 1869	2 45

Now we submit that our American cousins have reason to find fault with this "new vein," in that it only affects the price of salt on this side of the lakes, and noticeably in the region of Goderich. Salt has kept up steadily there, where there are no Goderich wells to compete with—or rather where a protection of 70 cents a barrel in gold makes competition impossible. As a matter of fact, to-day it is $2.40 at Syracuse, equal to $1 80 in gold. It is higher than that in Buffalo, and very much higher in Chicago. And yet at Stratford it has been reduced still further, since the "new vein" was struck, to $1 42, and at Toronto to $1 50. Before the Goderich salt wells were discovered the price in Canada was from $1 75 to $1 81, and it is only because of that discovery, and because of the competition which it has afforded in Canada, that prices have been reduced so far and that we are threatened with the discovery of another "new vein," and a consequent further reduction.

FREIGHT PROSPECTS.

THE following paragraphs from a long article published recently in the Detroit *Post*, on the prospects of freight for the ensuing year may be of interest to many of our readers:—

Until a few weeks since the prospect certainly had a gloomy look, and a large amount of vessel property was thrown upon the market in consequence of that prospect. While it was known that the amount of staves to go forward would show a diminution compared with last year the season had been a very unfavourable one for lumbering operations, which produced a depressing effect. But the recent extremely favourable weather for getting out lumber and other coarse freights has produced a material change in the prospect. There has probably been fully as much lumber got out as in any former season, and, although it has yet for the most part to be brought to the mills, we are safe in saying that the amount that will be sawed will be sufficiently large for the requirement of the market, and any greater amount than that will be of no particular use to vessels. The stave trade is rather less promising the amount got out being smaller than last year, although larger than was expected a month ago owing to the recent good sleighing. The stave buyers are very slow in their movements this season in consequence of the Cuban troubles. They did not come into the Saginaw country until February. There will be a world of miscellaneous coarse freights to go forward during the coming season, particularly hoops, pail-bolts, railroad ties, etc. A large number of Chicago men have been down on the north shore of Lake Erie, and at other points in Canada, securing railroad ties and a considerable amount of the same commodity will be required in Detroit, and various other markets. The illimitable timber resources of Michigan are constantly attracting new buyers from all quarters. At a single point on Lake Huron there are now 2,000 cords of pail-bolts awaiting shipments.

All accounts satisfy us that there will be from 25 to 28 per cent. more iron ore taken to market this year than ever before, while the grain trade looks decidedly promising. Not only are their ample stores at the Lake Michigan ports, but the stocks still remaining in first hands much larger than usual. These facts on the whole, have a tendency to cause a more hopeful feeling among vessel owners, and prices which would have been accepted a month ago, would now be most peremptorily rejected. They feel that there is a prospect for a fair season, although if they are reasonable men, they will not expect splendid profits in view of the rather straightened financial condition in which the country at large must continue a little longer.

The season of navigation will not open so early as was expected a few weeks ago, which is all the better for vessel owners. An early opening only adds to a season's expense account, without any compensating benefits.

Charters have been made in Chicago at 10c for wheat, 9½c for corn, and 7½c for oats. Should these prices prove typical of the season, vessels will do reasonably well. A month or two ago quite a number of charters were made for iron ore at $3.25 from Marquette to Cleveland, and $2 50 from Escanaba to the same port, but these rates afford only a very slim margin for carriers, and would not now be accepted. Concerning lumber freights, not enough has been said to throw much light on the question of rates. Six weeks ago shippers were offering $3 60 from Alpena to Buffalo, a figure below owner's views then and which would therefore be regarded as still farther from the mark now.

Capt C K Dixon, the well-known ship-broker of this city, has already effected what are virtually thirteen charters, as follow: Schooners Reindeer and Ellington, each six trips with pail-bolts from Tawas City and the shore near Harrisville to Cleveland at $3 75 from dock and $4 from shore, per cord of 120 cubic feet. Also, scow Sailor Boy for a cargo of lumber from Detroit to Sandusky at $1 50.

RAILROAD LEGISLATION.

NO form of corruption is more generally encouraged in State Legislatures than the action of those bodies towards the various important material interests representing wealth enough to make it profitable to bleed them whenever opportunity offers. The railroad interest, representing the most ready money and being the best able to make occasional payments on account is oftenest made the victim of these black mailing operations. If no one but the railroad companies suffered we might be well content to leave them to fight their own battles with the legislative "strikers," but since the public have to pay, directly or indirectly, every dollar of the "bribery and corruption fund" so expended, the matter is one in which we naturally take a strong interest. How to stop these little black mailing operations, and protect the railroad interest from any legislation except such as is calculated to make the roads more valuable to the business and travelling community, is a question that should receive the attention both of the press and the people.

The *modus operandi* of the Legislative strikers is this; An influential State Senator or Assemblyman