

expedient. Upon the question of the guarantee of the Imperial Government to raise funds for the Intercolonial railway, there may be more difference of opinion, but it is not likely that even here, much as Mr. Gladstone is opposed to these guarantees as a rule, any opposition will be offered.

Whilst touching upon the mercantile bearings of political questions, I may be allowed to add that so far the reform agitation has been without any effect upon trade. Indeed, to people who do not remember what happened in 1832, it seems almost ludicrous to suppose that it could have any effect. The general feeling, however, is that the question is approaching a moderate and satisfactory settlement, and that the probabilities are in favor of this settlement being arrived at without the necessity for a dissolution and an appeal to the country.

The returns from the Bank of England for this week present the following results:

	Amount.	Increase.	Decrease.
Public Deposits.....	£ 5,998,000	.....	£ 184,000
Private Deposits.....	18,288,000	.....	876,000
Government Securities.....	18,111,000	No change.	.....
Other Securities.....	18,716,000	.....	474,000
Notes in Circulation.....	28,024,000	£217,000	.....
Bullion.....	19,024,000	134,000	.....
Reserve.....	11,000,000	.....	88,000

This return is moderately favourable. The changes are not important, and the bullion shows a small increase. The Bank of France returns are as follows:—

	Increase.	Decrease.
The Treasury Balances.....	.....	706,000
The Private Accounts.....	1,049,000	.....
The Commercial Bills.....	.....	8,008,000
The Notes.....	.....	2,568,000
The Cash.....	889,000	.....

This return is also favourable. The changes in the various items are on a large scale, and with a decrease of £8,000,000 stg. in commercial bills, there has been an increase of £889,000 in the cash on hand.

February 9, 1867.

H.

TRADE WITH THE TROPICS.

(To the Editor of the Trade Review.)

SIR.—In your issue of the 8th February, a correspondent J. S. L., asks for information regarding the trade between British America and the Tropics. I think, that perhaps with the exception of that regarding Postal facilities, he would find everything he requires in the elaborate Report of the West India Trade Commission. It is much to be regretted that this valuable Report should be robbed of half its usefulness from want of being more extensively circulated. It ought to be in the hands of every business man, and I think that considering the price the country has had to pay for its compilation, and the undoubted value of the Report itself, the Government should at once issue another edition, which might very well be distributed gratuitously, or at all events sold at a moderate price.—I am, Sir, Your obedient servant.

St. John, N.B.,
February 16th, 1867.

N. B.

BEETROOT SUGAR.

(To the Editor of the Trade Review.)

I PERCEIVE that the feasibility of the manufacture of sugar from beetroot in Canada, is thought impracticable by some of the contributors to the *Canada Farmer*, and I was astonished to read that this most valuable branch of industry, could not be introduced in this country, on account of the severe winters, which would make the storage of the beets impossible.

If the writer of that article had informed himself how they store beets in Russia and Sweden, or the article of potatoes for the manufacture of starch, in the far Northern States of the United States, (Russia and Sweden being infinitely colder than the Canada's, and manufacturing some 150,000,000 pounds of sugar per annum,) he would have rendered a greater service to his country, than dissuading parties from an undertaking, which would lessen the price of sugar for consumers some 80 per cent., give occupation to thousands of labourers, and add a lucrative crop to the farming community.

And I am further very much surprised to note the ignorance evinced by a contributor of one of the principal agricultural papers of Canada, when he says, it is impossible to keep beets in a perfect state during the winter, and that he is ignorant of the

mode of storing them, one of the chief vegetable products of this, and all other cold countries.

Any parties who are desirous of information concerning the manufacture of sugar from beetroot, may communicate with me, and I will be most happy to furnish them with all necessary particulars, and do all in my power to have at least one or two factories started in Upper and Lower Canada.—Believe me, Sir, Yours very respectfully,

Montreal,
Feb. 21st 1867.

CARL BECHERER.
P. O. Drawer, 280.

PETROLEUM FUEL.

[From the English Mechanic]

WE have been informed that Mr. Richardson has resumed, or is about to resume, his experiments at Woolwich Dockyard on the use of petroleum as fuel for sea and land boilers. So far as we can make out, all the former series of experiments, eminently satisfactory though they were, have with our authorities gone for nothing. They have a splendid coal-testing apparatus at Woolwich, the property of the nation; and therefore do not want anything new-fangled, or that will do away with the use of that pet apparatus. It may be remembered that the rope-making machinery, the envy of the world, and the property of the lately deceased Mr. Cotton, was purchased by the then Government for the manufacture of hawsers, &c.; and yet, though the finest ropes in the world had been spun from it, so soon as it got into Government hands it was pronounced worthless, under the advice of interested parties condemned, broken up, and sold for old iron! Luckily for Mr. Richardson, he lives in 1867, and no cold water thrown on his excellent plan can put out his light, especially when he promises economy, cleanliness, and every possible advantage to a commercial public in the use of his furnace and general method. The new series of experiments are to be at Mr. Richardson's own expense—of course he will now be able to give every publicity to the various results obtained.

Originally it was found very satisfactory to burn the new fuel through a porous floor or permanent wick, but the great difficulty was to get rid of the smoke; it choked the boiler tubes, and so arrested evaporation, rendering frequent cleansing necessary. A superheated steam blast was turned in over the flame, with a certain amount of success, but still the smoke poured from the chimney in blinding quantity. Mr. S. J. Mackie, we have been told, suggested the application of the superheated steam beneath the furnace floor. The suggestion was at once adopted, the necessary alteration in the furnace was made, and the result was a triumph. After a little while, it was found that, by taps regulating the supply of oil and of steam, combustion could be rendered absolutely perfect. The experiments showed that there was in the materials a great difference in heating power—the Torbane-hill "once run" oil, beating all competitors. Eighteen and a half pounds of water were evaporated per pound of this oil in the defective apparatus, as against 94 lbs. of water per pound of best coal, in the Woolwich coal-testing apparatus—the finest in the world. With a properly built furnace Mr. Richardson would have evaporated 21 lb. of water. Of what immense importance this result must prove to the new naval fleet—the *Monitors* and "castellated" ships of light draught that are to be built—no one can give a proper estimate. If rock oil will raise three times the amount of steam that coal can do per pound consumed, then—if as much oil as coal can be burnt per square foot of grate—an oil-burning vessel can carry three times as much fuel as a coal-burning one, or, in other words, a war ship can remain under steam three times as long as a coal-burning one.

Turning to the merchant service, we know that on the length of the voyage depend the dimensions of the steamer to carry sufficient coal for the journey. The *Great Eastern* was to have run to India; it was found that this could only be accomplished by a vessel carrying 10,000 tons of coal. Out of 8,500 tons burden the *Persia* devotes 1,400 to her fuel! Reduce these figures by two-thirds, and you make the journey to India practicable, and enhance the profits of the American voyage very considerably. This, of course, is not all. We have steamed over the Atlantic in all weathers, in some of the heaviest gales on record, and have been filled with the most profound pity for the poor stokers and cinder-heavers. Half-burnt and half-drowned, we have seen them come on deck and nearly faint there from their terrible duties. With petroleum all this is done away with, consequently there is to be added to the saving in money the wages and "boarding" of stokers and heavers; there is also the saving of their berth-room.

Mr. Richardson has, in a manner, the field open to him; but we advise him to adopt a different course to that he is now doing—first of all to take himself clear away from Woolwich and appeal to those who supply his fuel to unite and afford him every facility for demonstrating the great value of his invention and experiments. A small company, with a few thousand pounds capital, would perhaps be better; we leave both proposals for Mr. Richardson's consideration, confident that with his assistance we need not fear for our coal supply, with petroleum coming from, or ready for use at, nearly every port of importance in the world.

A WINDFALL FOR THE BRITISH EXCHEQUER.—It appears that during last year there was a payment of legacy and succession duty under one will of the sum of £150,260. The same estate contributed £42,000 to the probate duty, the property being valued at £2,800,000.

THE SYDNEY CHEESE FACTORY—THE PROFITS OF THE TRADE.

THE annual meeting of the stock holders of the "Front of Sidney Cheese Factory," was held on the 3rd January inst. The following is an abstracted statement of the summer's business, which we commend to the careful perusal of the farmers of the country:—

Cost of factory, including building, vats, machinery, waggons for drawing milk, cans, &c., &c. \$2,260. The number of cows from which milk was received was 220, and the quantity of milk received 681,871 lbs., during 166 days. The amount of cheese made and sold was 69,498 lbs., which realized \$7,706.80. Expenses of manufacturing including making, drawing milk, boxes, freight, commission on sales, &c., \$1,554.83, leaving a nett balance of \$6,151.97, which was divided among 19 stockholders, each man receiving a cheque for his money. The factory commenced operations on the 10th of May, and closed on the 16th of November. No milk was received at the factory on Sunday, the milk obtained on Sunday was retained by the stockholders. We may here mention that the stockholders consist exclusively of those who furnish milk, each cow representing one share, so that every man furnishing milk has a proprietary interest in the factory. The success which has attended this factory has given the liveliest satisfaction to every stockholder, proving, as it does, that the manufacture of cheese not only pays, but is highly remunerative, and therefore cannot but be an incentive to others in different parts of the county to establish factories; it will render them to a certain extent independent of the grain market, and at the same time improve the land. The more advanced farmers have learned that it is time to adopt some system by which their lands can be reclaimed from the exhausted state to which the constant cropping has reduced them, and there is no more effectual way of doing this than by establishing dairies. Many have been under the impression that the selling of milk to, or of sending it to a factory was not as profitable as manufacturing butter and cheese themselves. Those who have supplied the Sidney factory have come to a different conclusion. The summer's business has convinced them that the most profitable use to which they can put their land is to stock it with cows, and supply milk to the cheese factory. The figures which we have given above show that each cow has netted, in cash, within a fraction of \$28 to its owners, from the 10th of May to the 16th of November, and one day's milking besides. But if we had the exact time that milk was furnished from the cows, it would show an income of over \$30 per cow, because in the figures given above we have made the calculation upon the assumption that milk was obtained from 220 cows for the whole time, when the fact is the full number of cows were not obtained until the middle of June. The best illustration we can give of the success and profitability of cheese-making is one in connection with this same factory. A man in the spring borrowed money and bought cows, and sent the milk to the factory during the summer. This fall, when the division was made, he received sufficient money as his share to pay for the cows, and to pay for his stock in the factory, of \$4 for each cow, thus giving him his stock on his farm and in the factory for the trouble of pasturing and milking during the summer. If this is not sufficiently profitable we know not what is.

The Hon. Robert Read has presented the company with the bonus of \$100, which he offered a year ago for the establishment of the first cheese factory in the county.—*Belleville Intelligencer*.

Curing Green Hides.

We take the following from the last number of the *New York Shoe and Leather Reporter*:—

A great many butchers, wool dealers, &c., are purchasers of hides off the beef in the country towns and we often get from them inquiries as to the proper and most profitable method of curing the hide and preparing it for the market. A great many butchers do not use proper care in this branch, and the consequence is that the hides will not pass city inspection, owing entirely to the ignorance or carelessness of the person who prepared them for the market. The proper way to salt hides is to lay them out flat, flesh side up, and form a nearly square bed, say 12 by 15 feet, folding in the edges so as to make them as nearly solid as possible. Split the ear in the cords that run up the ear in each one so as to make them lay out flat. Sprinkle the hide with two or three shovels full of coarse salt, as the size may require—say for a 80 to 90 pound hide, from 10 to 15 pounds of salt. At any rate cover the hide well, as it need not be wasted; then let them lie in this from 15 to 20 days, after which take them up, shake the salt out, and use it again.

NATIVE WINE.—The Hamilton Spectator says:—

We have frequently alluded to the importance of encouraging the manufacture of native wine in Canada, and have drawn attention to the many advantages which would accrue therefrom. There can be no doubt that the wine made from the pure juice of the grape is one of the most healthy beverages which can be indulged in, but the great difficulty has always been to procure wine which is really pure and entirely unadulterated. We are glad to find that Mr. George Lee has now on hand upwards of 3,000 gallons of grape wine manufactured by a gentleman in this neighborhood, and which we have every reason to believe is what it professes to be, viz., the pure juice of the grape. It has been manufactured with great care under the supervision of a gentleman who is thoroughly familiar with the practice as well as the theory of wine making, and is now in prime order.