

IRON SHIP-BUILDING.

A recent meeting of the "London Association of Foremen Engineers," the discussion of iron ships and their construction called for the expression of many interesting and valuable opinions from some of the ablest English Engineers. Mr James Rae, well known as a practical naval engineer, attributed the cause of the frequent disasters resulting in the loss of iron vessels, to original defects in the plan of their construction. This is undoubtedly true. Iron ships as a rule are built with frames of that metal, the outer skin being formed of plates of iron, and the inner one of timber planking. This latter serves as a floor for reception of the cargo but it is no safeguard in the event of the outer skin being penetrated. Great stress has sometimes been put upon the efficiency of bulkheads. Practically, they are really of little value. Steamships are usually furnished with four or five. These are supposed to be water-tight. Too frequently it is found, in the moment of peril, that they are nothing of the kind, and that after a collision such vessels leak at every seam, while the pumps are incapable of performing even a part of the duty expected of them. Mr Rae believed that bulkheads are illusory and defective protectors of iron ships. Vessels of this kind, as now constructed, were calculated well enough for ordinary service under favorable circumstances, but were totally unfitted to contend against the extraordinary accidents which often befall them at sea. It is quite true that the past twelve years had witnessed great improvements in the construction of iron vessels both as regarded the quality of the material used and in the mode of application. The speaker, however, mentioned some startling facts which had come under his own notice, when engaged as manager for a large ship-building company, and demonstrated very forcibly the haphazard modes of construction commonly practiced not many years since.

With regard to internal defects, Mr. Rae expressed many valuable ideas, and pointed out more particularly the weakness formerly observable in the head and stern of iron vessels. On this point he is well qualified to speak, as he has invented and applied most of the improvements by which these defects are now in part remedied. In 1858 he decided to commence an improved system of connecting the stem and stern of vessels entrusted to his building with the keelson. The keelsonplate was, in reality, carried up the stem and stern to a considerable height, and the solidity of the vessel was thus increased three-fold. The plan was patented, but, by a legal quibble, the inventor derived no advantage in a pecuniary sense, but, on the contrary sustained a heavy loss in the shape of costs. The Admiralty adopted the scheme without recognizing its promoter and it is now public property for all who are engaged in iron ship-building know its value and use it as freely as the Government. Mr Rae gave it as the result of his observation and experience that all iron vessels ought to be built with an internal as well as an external iron skin, the latter, of course, being of the greater thickness. Both should be made perfectly water-tight. Between the inner and the outer skins a series of bulkheads (say nine feet apart and extending from gunwale to gunwale, should be affixed. The space between the bulkheads should be filled in with asphalt, so as to prevent water passing from one space to another. Such an arrangement would add but little to the original cost of the ship, while it would increase her strength fully 50 per cent. These opinions were practically agreed with by many of the engineers present. There is no doubt that the art of building iron vessels is not yet fully understood, even in England, and it is not improbable that the American engineers will soon be able to give them some practical and valuable ideas on the subject. The question is now being discussed with much interest abroad, and as we are now depending on British shipwrights for most of our first-class vessels, both iron and wood, we trust that many improvements will result therefrom.—*Com. Bulletin.*

REVIEW OF THE ST. JOHN, N.B., MARKETS.

St. John, N.B., May 25, 1863.

MONEY—The market continues very active. There is a large volume of business doing, which is giving full employment to the resources of our Banking Houses. The circulation of all our Banks was never higher than at present; and it is increasing so rapidly that the time of Presidents and Cashiers is well-nigh entirely occupied signing notes to meet the requirements of customers.

Trade generally is brisk, shipments of lumber large, and labor fully employed, indeed business generally has not been so lively for some seasons past.

BREADSTUFFS—The flour market is very dull. Prices are 25.00 to 25.10 for superfine, and 25.20 to 25.30 for fancy brands. The demand keeps on the most restricted scale, and sales are made with difficulty. Every appearance indicates that we shall have a low range of prices, and dealers are indisposed to be in stock beyond immediate wants. The supply is quite ample, and if receipts continue to be liberal, a very languid and unremunerative trade may be expected. We hear of large shipments en route for this market.

Cornmeal, \$3.65 to \$3.75.

SUGAR AND MOLASSES—Receipts for the past week have been light and sales moderate. We are unable to make any change in our quotations for want of transactions.

COAL—A small cargo (115 tons) of Glace Bay, C. B., coal is the only arrival we notice. This is the first of the season of coal that has been

J. BELL FORSYTH & CO'S PRICES CURRENT OF TIMBER, DEALS, &c.

QUEBEC, May 23, 1863.

White Pine:—	s.	d.	s.	d.
In the raft, for inferior and ordinary according to average, &c., measured off	0	8	to	0 9 1
For superior do. do.	0	10	to	1 0
In shipping order according to average and quality	0	9	to	1 2
Board 18 to 23 in, in shipping order	1	3	to	1 4 1
Red Pine:—				
In the raft, measured off according to average and quality	0	9	to	1 1
In shipping order, 49 feet	0	10	to	0 11
Oak:—				
By the dram	1	6	to	1 8
Elm:—				
By the raft according to average and quality	1	2	to	1 6
In shipping order, 49 to 60 feet	1	5	to	1 6
Tamarac:—				
Square, according to size	0	9	to	1 0
Flatted, do. do.	0	5	to	0 9
Staves:—				
For specification merchantable	1	2	to	1 3 10
All pipe according to thickness	1	5	to	1 5 10
W. O. puncheon, merchantable	1	5	to	1 6 10
Deals:—				
Bright according to specification	1	8	to	1 9 10
For 1st, 2nds and others in proportion				
Flatted, do. do.	1	7	to	1 7 10
For 1st, 2nds and others in proportion				
Spruce do. do.	1	8	to	1 8 10
For 1st, 2nds, 3rds				

REMARKS.

English specifications of deals are 12 and 13 ft. long, one-ninth under 11 in. broad, and eight-ninths 11 in. broad and upwards—half firsts and half seconds are worth £2 to £3 more than the above quotations; and if first quality alone, from £3 to £5. Dry floated are worth more than our quotations.

N. B.—Parties in England will bear in mind that timber sold in the raft subjects the purchaser to great expense in dressing, butting, and at times heavy loss for cuts—if sold in shipping order, the expense of shipping only to be added.

Since we last issued our circular, a good many ships have arrived, and owing to the small quantity of timber for sale and the high prices asked, transactions have been of a very limited nature. No new rafts have reached market, and we cannot look for many before the middle or end of next month.

White Pine—There is little or nothing doing, one raft of 45 feet was placed at 8d.

Red Pine.—Some small sales at 9d. to 10d. for 37 ft. and 10d. to 11d. for 40 to 45 feet.

Elm.—In good demand at our quotations.

Oak.—We have no sales to quote.

Staves.—Pipe are in fair demand, and West India not much enquired for.

Deals.—There are no Pine in market. Spruce command our quotations.

Freights.—The last rates are:—For the Clyde, 22s 6d. to 23s.; for Liverpool, 24s. to 25s.; and for London 22s. to 23s. for timber, and 7s. to 7s. 6d. for bright deals. Comparative statement of arrivals and tonnage at this port, from sea, in 1863 and 1862, up to 27th May, inclusive:—

	Vessels.	Tons
1863	117	93,664
1862	239	163,339
More	122	69,685

J. BELL FORSYTH & CO.

HALIFAX MARKET REPORT.

HALIFAX, May 25.

THE weather still continues cold and unseasonable. Business dull for the season.

BREADSTUFFS—Flour still continues to decline, and sales have been made at \$5.25 to \$5.35. Lots have been offered to arrive at much lower rates. Strong Bakers, \$5.40 to \$5.50; Extra State \$5.25. Rye, dull at \$4.60 to \$4.60. Oatmeal dull, at \$6 to \$6.60. Corn Meal, dull, \$3.65 to \$3.75 for kiln dried, and \$3.50 to \$3.60 for fresh ground. Imports from January 1st to May 25th, 1863 and 1862:—

	Bbls. Flour.	Bbls. Cornmeal.
1863	65283	10667
1862	66564	17861

FISH—Without any material change. Codfish in very light stocks and chiefly in the hands of exporters. Large Codfish may be quoted at \$4.50. Small, from \$3.60 to \$3.60. Labrador, none. Haddock, dull and unchanged at \$2.25 for good hard cured. Riches Mackerel, no fat in market. No 3's nominally at \$3.50 to \$3.75. Several cargoes of Magdalen Island Herring have arrived lately, and are selling at 75c. to 80c. in bulk. Shore Split Herring none offering. Round dull at \$3.40. Bay Island Round in little demand at \$3.00. Salmon—none in market. Exports from January 1st to May 25th, 1863 and 1862:—

	Tons	Drums	Boxes	Hf-Boxes
1863	16206	3209	8349	6398
1862	19188	9566	11449	6876

Scale Fish.

	Tons	Drums	Boxes	Hf-Boxes
1863	5493	1352	630	334
1862	3352	2972	643	310

Salmon, Mackerel, Herring, Allowives.

	Bbls	Bbls	Bbls	Bbls
1863	1939	12790	25574	2063

OILS—Unchanged. Cod, scarce at 55c. Kerosene, American, firm at 43c to 60c for Standard White. Canada dull at 35c to 50c.

PROVISIONS—Butter easier, at 21c to 22c, for choice. Oats, 4½c. for Prince Edward Island Black. Lard 16c to 17c.

PROVISIONS—Pork firm and in good demand at 25c. for P. E. Island Meat; Prime Mutton \$19.50 to \$20. Nova Scotia \$14 to \$15. Beef dull and without change, at \$10.00 for American Mutton, and \$7.00 for Prime Mutton.

WEST INDIA PRODUCE—We have no change to note in prices of Sugar and Molasses during the past week, stocks light and small at our quotations. Vacuum Pan Sugar in bond 7½c to 8c; Porto Rico 7½c, Cuba 7c; Barbadoes 6½c to 7c in bond. Molasses Cienfuegos 3½c to 3½c. Imports from January 1st to May 25th, 1863 and 1862:—

	Molasses.	Puns.	Tons.	Bbls.
1863	6483	698	633	633
1862	6743	746	627	627
	Sugar.	Hlde.	Tons.	Bbls.
1863	2127	121	881	913
1862	3301	319	1743	812

FINANCIAL—Bank Drawing rates London 60 days 12½ per cent. prem.; New York Gold drafts at sight 3½ per cent. prem.; Currency drafts 25 per cent. discount. Montreal sight drafts 3 per cent. New Brunswick sight drafts 2 per cent. prem. Newfoundland sight drafts 5 per cent. prem. Discount bills 1 to 1 per cent. lower than Bank rates. Privilege on American Invoices at Customs this day, 25 per cent.

TOBIN & CANNING, Brokers.

RAILWAY TRAFFIC RETURNS FOR THE MONTH OF APRIL, 1863.

NAMES OF THE RAILWAYS.	Passengers.	Mails and sundries.	Freight.	Total.
Great Western Railway	119,207	10,770	276,039	406,016
Grand Trunk Railway	153,372	19,000	280,163	452,535
London and Port Stanley Railway	1,031	83	1,031	2,145
Welland Railway	1,076	890	2,764	4,730
Norfolk Railway	11,176	1,472	27,264	40,512
Port Hope, Lindsay & Beaverton Railway	3,013	247	8,222	11,482
Colborne and Peterborough Branch	4,423	1,081	9,144	14,648
Brookville and Ottawa Railway	4,423	750	7,688	12,861
St. Lawrence and Ottawa Railway	4,423	1,081	9,144	14,648
St. Lawrence and Chatham Railway	1,427	613	9,406	11,446
St. Lawrence and Industry Railway	1,427	613	9,406	11,446
New Brunswick and Canada Railway	6,036	80	6,133	12,249
European and North American Railway	3,494	50	11,851	20,395
Marathon Extension Railway	9,055	50	11,851	20,395
Nova Scotia Railway	9,055	50	11,851	20,395
Total	317,605	31,826	637,430	986,861

* No Returns.
\$ 3 weeks

JOHN LANGTON, Auditor

GREAT WESTERN RAILWAY.

Traffic for the week ending May 7, 1863

Passengers	528,394	96
Freight	47,268	70
Mails and sundries	2,232	12
Total receipts for week	577,894	78
Corresponding week, 1862	76,732	48
Increase	\$ 1,250	30

NORTHERN RAILWAY.

Traffic receipts for week ending May 15, 1863

Passengers	\$ 2,468	70
Freight and live stock	14,193	14
Mails and sundries	830	24
Total	\$17,654	93
Corresponding week, 1862	14,313	65
Increase	\$ 2,240	63