

tions between the Illinois Steel and Minnesota Iron Companies point to an important change as possible. Prices of Mesabi ore have not yet been established, though ore better than Fayal has been sold at \$2.45 to \$2.50, and pig is weaker. Bessemer at \$9.50, with one sale of 2,000 tons for \$9.25 at Pittsburg, and Grey Forge at \$8.50. Nails are about 5 cents per keg lower, and tin plates 5 cents per box, and Eastern quotations are frequently shaded to secure business. A heavy sale of Lake copper is reported at 11 cents, and lead is a trifle weaker.

The boot and shoe manufacture has some increase in orders without further reduction in prices, jobbers having delayed buying as long as they were able. Public quotations of leather do not change, but no terms are stated for some heavy sales. Hides are again about 2 per cent. lower at Chicago, and leather also is weaker there. There is more business in cotton and woolen goods, and a little better tone in prices, some cotton and some woolen goods having slightly advanced without general change. The mills are rather better employed, and the demand is apparently increasing, though not enough in wool to induce manufacturers to purchase. But imports have been enormous. . . .

EXPERIMENTS WITH NICKEL STEEL.

Experiments with nickel steel made recently by the British admiralty have brought out some interesting points in favor of that material. For twelve months plates of nickel steel, ordinary mild steel, and wrought iron were immersed in the sea, and the loss of weight in that time due to corrosion worked out at 1.36, 1.72 and 1.89 per cent. respectively. A number of bars of nickel steel and carbon steel, 1½ inches square and 18 inches long, were some time ago placed on supports 10 inches apart, and a weight of 1,000 pounds allowed to fall on them from a height of 3 feet, the bars being reversed after each blow. The carbon steel was fractured after five blows and broken after twelve blows, whilst it required seven blows to fracture the nickel steel and thirty-five blows to break it—an increase of 147 per cent. It is the general opinion of engineers acquainted with the qualities of this material that if it should be adopted for cylindrical boilers that have very thick shells, such as are used in large steam vessels, a saving of 25 per cent. could be effected in weight.—*Marine Review.*

THE ST. LAWRENCE ROUTE.

Liverpool Journal of Commerce.

Towards the close of 1896 we dealt with a paper on this subject from the pen of Mr. Sandford Fleming, the Canadian railway authority. The paper had appeared in *Queen's Quarterly*, which is a publication of some influence in the Dominion, and it not unnaturally excited a good deal of comment, most of which appears to have been adverse to the writer. Canadians were angry at the aspersions cast upon their noble river, the St. Lawrence. So Mr. Fleming has contributed a second article to *Queen's Quarterly*, extracts from which appear elsewhere to-day, and has attempted to put himself and his project right with the public. But, as we have said, a railway authority, however great, is not fitted to deal with a problem of this kind, the laws which govern the course of trade on land and water are so extremely dissimilar. Mr. Fleming's second paper only emphasizes this unfitness. He discusses, for examples the dangers of the St. Lawrence. He trots out once more the ancient examples of disasters to Allan liners fifty years ago. These accidents, as we have pointed out to weariness, did not by any means all take place in the St. Lawrence. If they did, they would be of no value as arguments to-day. The appliances furnished by science to aid the navigator have vastly improved since those days. The whole system of lighting and buoying the great river was then in its infancy. To-day safety at sea is very much greater than it was in the days he discusses. There have been recent accidents, it is true, in the St. Lawrence. So there have also been in most parts of the world. We are content on this head of the alleged dangers of this place to take the experience of seafaring men, including Admiral Sir John Hopkins, in antagonism to that of Mr. Fleming, the railway man, even when in this second paper he calls in the aid of another amateur, Mr. Fry, the collator of an interesting number of stories

about the development of steam navigation. It may well be that even improvement of the channels, and to their lighting and buoyage, may be advisable. But these are matters which will benefit mail and cargo boats alike, and they will take neither the time nor the money that the establishment of a fast mail line will entail.

Now, as to the terminal ports, Mr. Fleming has shifted his ground. He argues in favor of Sydney, Cape Breton, as the terminal summer port. Thence he would in summer send his passengers via Cabot Strait into the St. Lawrence by branch steamer, which apparently would be equally, or almost equally, luxurious as the mail boat, though without its power of going fast enough to run into danger. In winter the branch steamers would go off, and the mail boats would, as now, make their terminus at Halifax. Here, again, we see the hand of the railwayman. Cape Breton is a good place for coal, truly. But the cost of sending the coal by sea to neighboring ports is not enough to determine the objective of a mail line. If it were so, Cardiff would take the place of Southampton. Next, we may be quite sure that passengers would be discouraged by a change at Sydney. Passengers both by land and sea hate change. They get used to their staterooms and their surroundings, and they hate packing and unpacking their belongings. Besides, if these branch steamers are to be slow enough to escape going ashore in a fog, they will have to be incapable of movement at all. For vessels have stranded even in waters outside the St. Lawrence when they apparently had run off all their way. The idea that New York passengers would use the service to Cape Breton and not find the 860-mile journey overland an objection, "because hundreds of passengers daily make the railway journey between New York and Chicago," is untenable. To Chicago they have no option of express steamers. In the other case they get the finest steamers afloat, not merely to Cape Breton, but direct to Europe. Mr. Fleming wisely leaves the question of the terminal port at this side as a matter with which he has little concern, though we still see traces of his interest in Loch Ryan.

We cannot leave this subject without a word as to the provisional agreement which has been made by the Dominion Parliament with a Newcastle firm. This seems at last to mark a step in the long delayed arrangement for starting

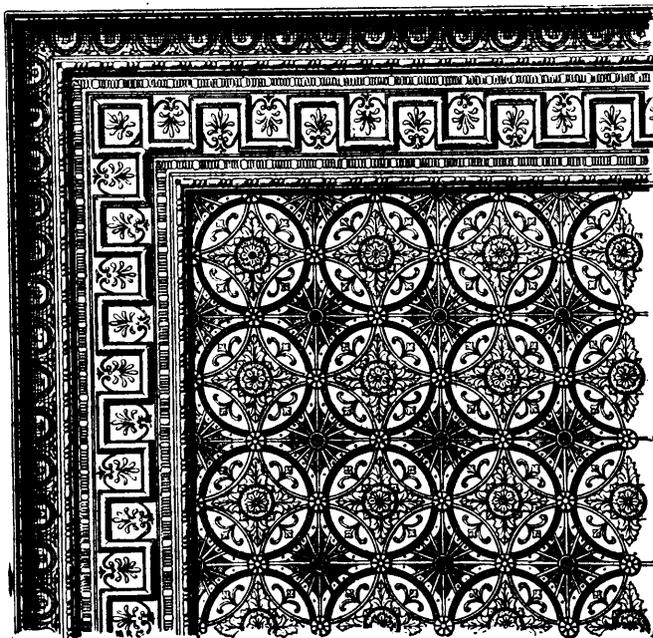
the line. We feel sure that the firm in question will fulfil all that it undertakes. Yet we cannot but feel regret that the Dominion Government could not see its way to accept the tender of the great and historic firm which has so long carried out the service between the Mother Country and her nearest colony. The long experience thus gathered up was surely worth something, and should have weighed somewhat in the balance. In connection with this topic we publish an excellent communication from a writer whose views are always entitled to be received with consideration and respect, and we feel sure that many besides Dr. Ginsburg will "feel strongly" on the matter introduced by him.

MIXED METAPHORS.

It is not necessary to charge to the Irish all the bulls and mixed metaphors that are floating about, or are perpetrated from time to time. The newspapers of the day furnish some excellent examples of both, and some are funny enough to warrant preservation. An insurance journal, speaking of the greed of life companies for new business, says: "This is the grain of mustard seed from which has grown the upas tree of rebating." But even this change in the order of nature is not quite so bad, in the opinion of the *Spectator*, as that perpetrated by a member of Congress as reported in a daily paper, who, in discussing the proposed tariff on wool, writes: "You will keep on clipping the wool off the sheep that lays the golden egg till you milk it dry." That ought to restore wool to the free list. But an exchange calls attention to a queer expression of the kind in what the Lord Mayor of London said to Ambassador Bayard, at a dinner recently given to the United States representative. Said the Mayor: "You, sir, have distilled from the bosom of the English public that torrent of fraternal love which will cement the love and affection which we, the English and American peoples, should and do entertain toward each other." To turn the English bosom into a distillery is bad enough, comments the *Can. American*, but to extract a torrent of cement beats Boyle Roche, who smelled a rat and saw it floating in the air before him, and heroically promised to nip it in the bud.

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