Speed tests of all kinds, the writer says, offer great temptations to ignore practical conditions. Not content with learning the ordinary possibilities of the bicycle, we must suck a cyclist along behind a locomotive at a mile a minute; instead of inquiring how fast a steamboat may go while retaining its usefulness, we throw away all use and try to build boats that are all engine and nothing else. He thus sets the seal of his condemnation on the modern torpedo-boat, which he regards as a case in point:

I can not but think that our Government, following the lead of other admiralties, is throwing away a lot of good money upon torpedo-boats and torpedo-boat destroyers. The other day I had the pleasure of seeing the completed engines for one of these boats, and also of looking over the hull, not yet launched. No one can realize how far the process of cutting down the weights upon these things has been carried except by a personal inspection. The engines are the perfection of workmanship in every detail, but they suggest also throughout weakness and unsafety, and when these engines break down on trial, as they usually do, and it is lucky if some of the men are not killed, neither the workmanship nor the material is the place to look for the fault. The hull was such as a sight of the engines would suggest. To call it an eggshell is inadequate. Here was a boat about 180 feet long, I think, to carry engines of 4,000 horse-power, and the plating of the hull a trifle over 1-8 inch thick and not a double shell anywhere. The decks also were single, and a little over 1-16 inch thick, and buckled under my feet as I walked, and everything in proportion. If anything touches this hull it must be crushed, and it can not take long to rust it through—and then where are we?

We may strain for fine points far beyond the line of profit. There are many things that it is easy enough to get excited about, and in which we try to beat all creation, but after we have done it we often find that it costs more than it comes to.

POSSIBILITIES OF THE CANADIAN IRON INDUSTRY.

Pittsburg, the leading iron centre of the United States, gets nearly all its iron ore from the mines south of Lake Superior, and the ore has to be carried first by rail, then by water, and again by rail for about a thousand miles, involving three handlings, before it reaches the blast furnaces, while the ore to be used by the Dominion Iron and Steel Company in the blast furnaces at Sydney, N. S., will come from the Great Bell Island mine in Conception Bay, Newfoundland, about 400 miles distant from Sydney, and will only have to be handled once, being loaded at the mine upon large ships that will lay it down at the pier of the company right beside the blast furnaces.

Mr. R. E. Chambers, M. E., the manager of this remarkable mine, in a recent interview, states some facts and makes some suggestions that bear strongly upon the possibilities of the cheap manufacture of iron in Canada. He says that the ore of Great Bell Island can be mined and loaded on ships for from twenty-five to thirty cents per ton. This is not a matter of conjecture, but of actual experience extending over several years in which 600,000 tons of ore have been mined and shipped. No royalty has to be paid. Some idea of the freight rate from Great Bell Island to Sydney, a distance of about 400 miles, can be obtained from the freight rates on the ores shipped from Lake Superior ports to Ohio ports, a much longer distance. The average rate during 1898 on iron ore shipped from Escanaba to Ohio ports, was 50.8c; from Marquette to Ohio ports, 59.8c; head of Lake Superior to Ohio ports, 61c. The average rate during the past ten years has been: From Escanaba, 67c; from Marquette, 83c; from the head of Lake Superior, 94c. During recent years the rates have been lowered owing to the increased size of the boats navigating the Upper Lakes. Most of the ore from Lake Superior was brought down to Lake Erie ports last year in the large 6,000-ton ships which were put in commission in 1897. It was found that the smaller boats could not compete with them.

The distance from Great Bell Island to Sydney being much shorter and through much deeper waters without any canals to go through, or any tortuous, narrow channels to navigate, larger cargoes could be carried and better time could be made, so that the freight rate on ore should be lower. It may, therefore, be assumed that the cost of laying down ore at the Sydney blast furnaces, including mining, loading, shipping and unloading will not exceed one dollar per ton, and it may be considerably less. Compare this with the cost of ore in other places. At Cleveland, according to The Mineral Industry, the prices fixed last year were as follows: Hematite ores, Bessemer quality, $2.55 to $3.25; hematite ores, non-Bessemer quality, $2.10 to $2.25. The annual statistical report of the American Iron and Steel Association gives the prices at which sales were made early in 1899 for season delivery at Cleveland as follows: No. 1 Bessemer hematites, $2.80 to $3.25; soft hematites, No. 1, non-Bessemer, $2 to $2.15. From Cleveland to Pittsburg the iron ore has to be carried by rail and the freight rate on ore must be added.

The Statesman's Year Book, says that in the year 1897 the United Kingdom imported 5,968,680 tons of iron ore, the value of which was £4,436,004, that is, 14s. 10d. per ton, equal to about $3.60 per ton in Canadian money. From 1893 to 1897 inclusive, 24,336,814 tons were imported, and the value was £16,963,370, that is, 14s. per ton, equal to about $3.40 per ton in Canadian money. At the present time Spanish hematite ores laid down in Glasgow are selling at from 15s. to 17s. per ton, that is, from $3.65 to $4.15 per ton. "The Iron and Coal Trades Review," published in London, Eng., in its issue of September 1, 1899, states that the price of hematite ore at the mines on the west coast of England on August 31 was 16s., equal to $3.90.

The Nova Scotia Steel Company has been selling Great Bell Island ore in Rotterdam at a price which amounted to $1.15 per ton at the mine, after deducting the cost of transportation, giving them a profit of 85 or 90 cents per ton, and it is said that the Dominion Iron and Steel Company have assurances that they can sell ore in Rotterdam for delivery next year at from 15 to 16 marks per ton which would give them from $1.65 to $1.90 at the mine after paying the cost of mining and transportation, making the profit on every ton of ore mined for export from $1.35 to $1.60.

The iron ore supplies of Great Britain, Germany and other iron manufacturing countries of Europe are rapidly becoming exhausted. Great Britain has for years been drawing supplies from Spain and other outside countries. The making of iron is not a new thing. In the 4th chapter of Genesis Tubal-cain is described as an instructor of every artificer in brass and iron," and nearly all the ancient writers refer to the use of iron. In all the ages that have passed since Tubal-cain