in lake transport of coal and ore consists of large vessels, of, say, 10,000 tons; their average length is something like 550 feet, with a beam of perhaps 50 to 55 feet, with the engines aft and the quarters forward, and all of the hatches, as you know, open up; you practically take the whole deck off, and underneath you have simply a bin. There is no bracings or anything in there. Now, these vessels handle ore and coal at a low rate with a good deal of profit, and can be loaded and unloaded easily. I have known a ship to come into the port of Ashtabula at 8 o'clock in the morning with 10,000 tons of ore, be unloaded, be reloaded with 10,000 tons of coal, and be away by 8 o'clock in the evening. That makes a very fast turn-around, but vessels of that knid would be much too large to pass through our present canals, and I doubt if we built a vessel of a size to pass through the canals, there would be a profit in it.

By Sir Henry Drayton:

Q. That is a typical lake coal-carrier?—A. Yes.
Q. There has been a slight change in that. There is one operating out of Thorold. A man called Dick owns it. It is a stronger boat and has certain mechanical devices, and is supposed to be doing very well with sand and coal. I was wondering if it would be feasible with that type of boat, which is smaller than the type of which you spoke, to bring up coal from Nova Scotia to Toronto and Hamilton at a cheaper rate. It would be a good thing for Nova Scotia, and a good thing for Ontario?—A. I am speaking now without much knowledge of this particular boat, but I would say you would practically have to have the same crew on the smaller boat as on the larger. In the larger boat you would have much more cargo expense.

Q. I don't think it would stand the weather you get on the Gulf?—A. I think

that is true.

- Q. This other boat is a half-way boat between a sea boat and a lake boat?— A. I think you will find the whole question will hinge upon the expenses of running the boat per cubic foot of cargo space. That is where we "get off" eventually. That might very easily be investigated; it would not be any particular trouble.
- Q. It seems to me there is a large field there which ought to be investigated in the public interest?—A. It would not be much of an undertaking. I think we had better make an investigation of that and give a report before the committee adjourns.

Sir Henry Drayton: If there is any way of getting Nova Scotia coal to

Ontario, we want to do it, but by water is the only way we can do it.

The WITNESS: Water is the only way we can bring Canadian coal up in competition with United States coal.

By the Chairman:

- Q. Could it be brought up without trans-shipping at Montreal?—A. Yes. Sir Henry's idea is to provide a boat that will pass through the Canals.
 - * By Hon. Mr. Graham:
- Q. It would require a boat of considerably light draught?—A. I am afraid we will be up against the small size of the boats.

Mr. Harris: I take it none of these 107 trips you spoke of with these 8 steamers competed in any way with boats carrying general cargo to Hamilton and Toronto?

Mr. Doherty: No, they did not come down below Port Colborne.

Mr. Harris: No competition with the Kirkwood Line or the Canada Steamship?