though at the same time they are gentlemen of high personal character, and have shown unusual ability in dealing with this subject—made a statement which I presume the Minister is familiar with; and in order to place it on record as part of the literature on this subject, I will read it to the House:

"There is another and much more important letter bearing on the navigation of La Have, to which we do not notice any reference in your communication. I refer to that of Capt. Cashon of the tugboat *La Have*, who from the nature of his business would naturally be watchful of the movements of sawdust in the channel. As your attention may not have been called to it, we herewith reproduce it:

"BRIDGEWATER, 22nd Nov., 1888.

"C. H. DAVISON, Bridgewater:

"SIR,—I am in receipt of yours of 20th inst. You wish me to inform you by letter how the depth of water in the channel of the La Have compares now with the time I first took charge of the tugboat; also if I can or cannot now bring as large vessels to the wharves as I could years ago? In reply, I may say that I have been towing on the La Have every season since 1878, and have noticed but little variation in the depth of the channel during that time, and I find no more difficulty in bringing large vessels to, or taking them from the wharves now, than I did when I first took charge of the tugboat. I took the barque *Montreal*, from the wharf this season drawing over 17½ feet, the greatest draught I have taken down the channel since I have had charge of the tugboat.

"Yours truly,

"W. H. CASHON.

"As Captain Cashon may well be considered an authority on the subject, and besides is deeply interested in having the channel kept perfectly clear, he being an owner and manager of the tugboat, we think his statement is sufficient to show that the 'prevalent feeling that the harbour was being ruined,' to which Mr. Rogers refers was and is entirely groundless."

Mr. TUPPER. Mr. Rogers, of whom the hon. gentleman has spoken, said with reference to the Messrs. Davisons that they admitted that vessels had been stopped by this sawdust of which there were several feet in the Medway River.

Mr. FLINT. I did not refer to the fact that the largest vessel that ever took cargo in the La Have River, a vessel drawing 17 feet 8 inches of water, loaded at Davison's mill, I think, in the year 1888 where, for a great many years previously, vessels of her tonnage were obliged to load partially and then drop down the river to complete their load. Every gentleman familiar with the subject must know that from the nature of things sawdust of itself cannot offer any obstacle to navigation, because it is very light and easily moved. With regard to the steamer grounding and a disagreeable odour being stirred up by her screw on the occasion referred to, this would occur in any harbour or river, because all those at all familiar with that subject are aware that the bottoms of harbours and rivers always do create a very unpleasant odour if they are stirred up by screw steamers or paddle wheel steamers, and the fact that there happened to be a certain quantity of sawdust there had nothing to do with the odour. I am going to read a few quotations from the report of a former inspector of fisheries, Mr. Rogers, not giving his opinion, because that might be received, under the circumstances, with a certain amount of suspicion, but he quotes from persons of undoubted standing in connection with the subject of fisheries, whose opinions are diametrically opposed to those given in the very able address we have had from the hon. Minister this evening. Dr. James S. Miller, overseer of fisheries, at Canning, King's County, says:

"In regard to the question of sawdust and its effects on fish, in my opinion in cannot be poisonous. If it was, the fish would be found in numbers, dead or dying, floating on the surface of the water in rivers where sawdust in large quantities is allowed to run. But I have never heard of any reliable person having seen such a state of things. I have seen shad on more than one occasion opened in which was found sawdust, but whether the shad swallowed the sawdust in the ordinary way as food, or whether it was swallowed in the death struggles, I am not prepared to say. This, however, I do know, that in no way did these fish appear different from their fellows. They were as fat, as large and as plump as any. Now if the sawdust was poisonous, one would expect to see some effect from it. Sawdust being woody fibre could not become poisonous without decomposition or fermentation. The cool spring waters that form our rivers, as well as the motion of the water, the currents, would prevent anything like fermentation, as the water at any given place is constantly being renewed. I take it, therefore, that decomposition would be about impossible under these circumstances, and I believe the idea of sawdust poisoning fish will have to be abandoned when the question is more fully understood. From what I have seen and read, I am satisfied that sawdust does not kill fish."

Mr. Rogers, further in his report, says:

"The following from a paper by Prof. H. Rasch, of Norway, published in the United States Fishery Reports for 1880, page 517, gives an idea of how the sawdust question is viewed in a country where they have had a much more extended experience than we could have in a country so young: That the rivers on which there is considerable cutting of timber gradually become more and more destitute of salmon is an undeniable fact, but while it is asserted that the sawdust introduced into the river from the saw mills causes the salmon coming from the sea either to forsake its foster stream because of meeting the sawdust to seek another river not polluted, or else when the fish attempt to pass through the areas quite filled with sawdust, then this by fixing itself into the gill opening or between the gills causes its death, yet later experience seems to entitle us to the assumption that sawdust neither causes the salmon to forsake its native stream nor produce any great mortality among the ascending fishes."

He then proceeds to give a large number of statistics with which I will not trouble the House at present. I may say this is a report made to the Minister of Marine and Fisheries, and probably he may explain on a future occasion why it was not published among the other reports of his Department. Mr. Rogers proceeds to state:

"I beg next to call attention to the state of the river fisheries in many parts of Nova Scotia where there is abundance of sawdust, and also to the river fisheries of Cape Breton where there is substantially no sawdust at all. The Margaree River, in Inverness County, Cape Breton, which has neither mill-dams nor sawdust to interfere with its fisheries, and which used to be one of the most prolific fish-producing streams in Nova Scotia, has given a yield of salmon during the ten years, 1870-79, of 67,927 lbs. per annum, and for the eight years from 1880-87 of 36,991 lbs., an average yearly decline of nearly fifty per cent. The catch of alewives on the same river during the former period was 1,431 brls. per annum, and during the latter only 826 brls., a decrease of 505 brls. per annum. Should there have been a few saw-mills on this river, the decline would have, of course, been attributed to sawdust, and demands that the law be enforced would be made. The four counties of Cape Breton, whose rivers are comparatively clear of sawdust, produced of salmon per annum, from 1870-79, 284,792 lbs., and from 1880-87 but 125,292 lbs., a decrease of 159,400 lbs. per annum. The following table shows the catch of salmon in the rivers of Nova Scotia proper where sawdust generally abounds, and also in the rivers of Cape Breton where the opposite is the case:—

| Year. | Catch of Salmon in N. S. proper. | Catch of Salmon in the four C. B. Counties. |
|---|---|---|
| 1880 | 232,890 lbs. | 150,660 lbs. |
| 1881 | 196,313 " | 83,730 " |
| 1882 | 468,956 " | 111,155 " |
| 1883 | 469,900 " | 106,100 " |
| 1884 | 601,850 " | 146,100 " |
| 1885 | 615,153 " | 144,100 " |
| 1886 | 499,574 " | 109,600 " |
| 1887 | 625,368 " | 159,985 " |