

say Philadelphia is safe—but at New York and Boston at the time of our visit, and at our own ports, there was a very great lack indeed of any modern facilities for rapidly and thoroughly disinfecting the baggage, which might have been infected before it was packed up and brought on board at Hamburg. That, then, is the next absolute necessity—that we must have modern disinfecting appliances wherewith rapidly, and with certainty to destroy any germs in the baggage or effects of immigrants, and, next, that there shall be at these points such facilities as shall rapidly and completely disinfect the ship which may have been infected. Now, at no place on our whole tour from Grosse Isle to Washington did we find any sufficient apparatus for that particular part of the work. So you can see that there is in that direction a very grave question facing us—how much can our Government afford to spend, how much can the Federal Government and the State Governments of the United States afford to spend for this purpose? What shall be its character, and, next, where shall they make their main point of defence? If we have not money to do this at more than two or three points, then it is possible to require all ships with passengers to come to those points. What is demanded is that here and in the United States, at those points, there shall be absolute defence against ingress. The other point I shall simply refer to because it belongs to the honorable gentleman's department—and it is a question which has arisen with the members of his own Cabinet, and with Provincial Governments and the various transit companies—what action shall our Government and the United States Government take with regard to bringing in immigrants next year?

We know that next year we are to have a great World's Fair on this continent, and we know there will be a large influx of a very doubtful class of immigrants from European countries. The immigration to the States last year was over seven hundred thousand. The Grand Trunk Railway brought in nearly forty thousand, mostly from the port of New York, during the last eight months, and our great railway has brought in some sixteen thousand by way of the St. Lawrence. This indicates that the danger to us is greater *via* New York than it is *via* the St. Lawrence, and it further indicates that the United States are not in any way exposed as much to us as we are to them. The question then arises, What can we, as medical men, viewing the situation broadly, recommend to all the health authorities with regard to next year? Our opinion is that of many gentlemen in the United States, that expecting, probably, immigration from Norway and Sweden and the British Islands, we shall urge that for a year at any rate—that is, next year—there shall be a complete embargo put

upon that kind of immigration which comes to this country, especially through the port of Hamburg. You all know what it is; I need not describe it. If any of you have any doubt about it, let him look at the arrivals by the various ports of entry. If cholera once gets into New York and begins to spread, the people would disperse by twenty or thirty lines of railway, and coming into Buffalo by as many more, you can readily understand what we would be exposed to. The only fight we can make of a really effective character is the external fight. If after that we have to fight it in our individual towns and cities, I trust that with the work done in the present winter by local health organizations, cleaning up everywhere and making the most positive health regulations necessary, we shall be comparatively free from danger if it gets through our frontier. I trust gentlemen will continue the discussion as I have indicated, and, if possible, formulate some broad conclusions that will be useful to ourselves as health officers and, I have no doubt, of equal use to the Honorable Minister of Agriculture.

Dr. Rogers: What would Dr. Bryce consider as the most rapid and thorough way of disinfecting the baggage and the passengers on ships?

Dr. Bryce: Of course it is a question with a great many details in it, but I may say briefly this: it can be illustrated by one single reference on this continent. At New Orleans, as we all know, every year they suffered greatly from yellow fever, and especially from 1876 to 1878. The district during those years was semi-decimated. They introduced a very simple process of putting the infected material into a long cylinder, which could be supplied with live steam under pressure rapidly driven in through pipes, and kept there until everything in the inside was disinfected. It has been improved upon, and we have now, in the one at Grosse Isle, one of the most effective that I have seen on the continent. It is about nine feet long and four feet in diameter. It would only take a few square yards at a time, and that would take too long,—that is, for the baggage itself. The other point is, that after the persons have been removed, they are handled in this way at Philadelphia by appliances completed last week. They fitted up a steamer complete in its details so that they could run out close to the infected ships; then take on 50 or 60 passengers an hour, and put them in large bath-rooms where they can be washed within an hour, and while washing have their clothing put in a superheated room where it can be disinfected. The next hour they take off as many more, and in that way disinfect the whole of the passengers. That is the steamer of "observation." Then they take the baggage by a lighter to the shore, and disinfect it in a super-