We are intimately concerned with the relationship of milk to what is often called infantile diarrhœa, or summer diseases of children. Some years ago I was associated with Dr. Harrison and Dr. Savage in conducting a bacteriological investigation into the milk-supply of the City of Montreal. We examined a great number of samples from the various parts of the Province, representative of the dairies supplying the City of Montreal. At that time the death-rate of infants under one or two years of age in the City of Montreal was equalled only by the death-rate of infants of similar age in Chile; thirty-two out of every hundred at this age died, due largely to diseases of an intestinal nature. These cases were partly and possibly largely due to contaminated milk; but I wish to tell you that as a result of that work the conditions in Montreal are entirely changed. Further, several years ago the City of New York had a death-rate of children under five years of age equal to 90.2 per thousand births. Thirteen years later the death-rate per thousand had fallen to fifty-five, largely due to the introduction by Nathan Strauss of the sale of pasteurized milk. It is highly desirable at this point to emphasize emphatically that in cases where questionable milk is suspected of causing intestinal troubles, and a change of milk or pasteurization of milk bring about a better state of affairs, this better state of affairs is due to some extent to the fact that once a mother is interested in controlling and caring for her milk she becomes in the truest sense a hygienist. And it is probable that the quickest way to institute a sane appreciation of the general hygiene of living is through a campaign for hygienic milk. The bacteria associated with these troubles are principally the organisms coming from intestinal sources.

We have already stated that, provided the cattle are healthy, all bacterial contamination arrives during or subsequent to the production of the milk. There are certain organisms in the udder of the normally healthy cow, but they are to a very great extent innocuous. Hence the presence of bacteria is preventable. Thus the cost of community loss in child-life, the fear of drinking milk on account of possible troubles to follow and the consequent lack of nourishment to the child on this account, further loss of child-life because of the lack of necessary milk, loss of prestige to the purveyor, loss of customers, and loss of income constitute what the country, the community, and the dairyman pay for the bacteria—the high cost of bacteria.

Fears have been expressed in some quarters regarding the Fraser Valley Farmers' Association movement in respect to the supply of milk to the City of Vancouver. I have no fears at all in this direction. I am confident that in a very few years' time the situation as it exists to-day will in its development bring with it such conditions as will result in Vancouver receiving a supply of milk second to none on this continent. With the organization indicated, all of you concerned financially, as well as morally, in its welfare, you are gradually going to bring about conditions associated with the production and distribution of milk such as could never have been possible under other circumstances. You will now all subscribe to the common welfare of the association, and you are all involved in the moral responsibility to the consumer. Through his pocket each member will be educated to produce a hygienic milk.

Let us return to wastage. We have said that wastage and spoilage are primarily due to lack of control and to mismanagement of the bacterial population of the milk and its products. We have said—with specific qualifications—that the presence of bacteria is preventable. In the State of New York some two or three years ago milk and cream valued at $2,000,000 had to be returned to the suppliers by one creamery alone. Why? Because it was sour and spoiled. It was wasted, it was thrown back on the producer, and no returns were available. During the war the Dairy Research Station at Reading, England, was asked by the Government to inquire as to the losses of milk due to spoilage. The milk from two districts, producing 90,000,000 gallons and 75,000,000 gallons respectively, was investigated. By the time the milk reached the city 1 per cent. of it was not available for consumption by the consumer. It had spoiled or sour. At current prices that loss is computed at $7,000,000. There is the loss in money, loss in terms of food, and loss of food for which there is no substitute. The sums of $2,000,000 and $7,000,000 respectively are what the farmers and the community have paid for their bacteria—surely a high price to pay. In the work done on the Montreal milk-supply by Harrison, Savage, and Sadler, we found