of-war or a properly victualled merchantman, is of rare occurrence today, and should the disease break out the blame is at once laid upon those who found the ship. This immunity from the disease is due to the British Board of Trade regulations which requires that an ounce of lime juice be served out to each man per diem. This amount, experience has shown to be sufficient to maintain health on a dietary of salted provisions for an indefinite period.

A third and more recent theory is that scurvy is caused by ptomaines, the products of decomposition. In the preservation of meat by salting, before the salt can penetrate to the centre of a large piece, or when the meat has remained unsalted for any considerable time, decomposition, with formation of ptomaines has already begun, but may be arrested by the salt at a point short of being offensive to the sense of taste or smell, but the meat is nevertheless unfit for human food, and a continued use of it will sooner or later inevitably produce scurvy.

Briefly stated these theories may be called:

The Sodium and Potassium Theory.
The Vegetable Acid Theory.
The Ptomaine Theory.

Sodium and Potassium salts are normal and therefore essential elements in the human economy. Sodium salts are non-poisonous even when given in excessive quantities, though the same cannot be said of potassium.

In the curing of beef an excess of sodium chloride may be employed, but potassium nitrate is used in the proportion of two ounces to each 100 pounds of meat. Only a portion of these salts find their way into the meat, the balance being present in the liquid brine, and upon cooking the meat there is always more or less dissolved out in the process, so that the total amount of NA and K actually ingested with the meat must be considerably less than the original quantity present, perhaps representing a daily amount of five grains of K N 03

That this would produce scurvy there is no evidence to prove; the experience of medical practice is against this conclusion.

The proportion of K in K N O is 25% so that in grs. V of K N O there is an amount of K equivalent to grs $\frac{111}{111}$ of K I ($K^{39.14.16}N^{14}O_3 = 101$ $K = \frac{39}{101} = 2.59\%$ $K^{39.127}I = 166$, $K = \frac{39}{166} = 4.25\%$ grs. $\frac{111}{111}$ K I = K 1.275, I 1.725 = 3000)

The effect of the N A would be to increase the consumption of water, and the excess of both would pass out through the kidneys.

2. If the vegetable acid theory were correct, one would always expect that scurvy would appear where an exclusively meat diet was adhered to. But experience does not prove that. Take the records of the H. B. Co. in this country. At the majority of their northern posts, practically no vegetables nor fruits were used, nothing but meat and fish. Several years ago the writer conversed with men from the Mackenzie river district, and was informed that a pound of flour at Christmas was all they got during the year. One of these men had been there eleven years, another fourteen, subsisting on an entirely flesh diet, and yet the records of the company do not show any cases of scurvy. In fact the only Hudson Bay Post where scurvy has occurred is Norway House. At this post large quantities of wild geese are shot in the spring and salted down for the summer season. The disease would show itself towards the end of the season, when for months past the only available meat was salted geese. But at no other post was there any sign of the disease though an exclusively meat diet prevailed nearly all the year around.

These facts show that the absence of vegetables or of vegetable acids from a dietary, is not sufficient to cause scurvy.

The third or ptomaine theory appears to agree more closely with ascertained facts than the other two. Old salted beef it is well known developes a strong putrefactive odor very noticeable when boiling, though the taste may not be much altered. This can only be due to chemical changes taking place in it, independent of the Na and K. The salted geese