

without fire, so spare is their occasional supply of wood. Their huts are often built of snow, and the temperature varying from zero to freezing point, is kept even thus elevated mainly by the radiation of heat from the bodies of the occupants. "Yet, with this seemingly unendurable temperature, they appear to live in comfort. The outside temperature varies from 30° to 70° below zero. No matter how low, provided the air is calm, they do not hesitate to shift their quarters as occasion may require, and with their families and domestic furniture upon their sledges, they travel sometime forty or fifty miles at a single march..... My object in dwelling thus minutely upon the habits of this people you will readily appreciate. Living virtually without fire, most meagrely dressed, dependent upon the hunt for every necessary of life, and almost daily exposed in the pursuit of game to the very lowest temperature, we are astonished at their complete indifference to the cold. They are, too, a strong, robust, and healthy race; scurvy is unknown amongst them, and I have never known or heard of an instance of tubercular disease."

It is the quantity and quality of the food consumed which supplies this power of resistance, the daily consumption of animal food (the walrus, seal, narwhal, and bear forming the chief supply) being from 12 to 15 lbs.—about a third part being fat. In proportion as the diet of the *Advance* approached that of the Esquimaux, did impunity on exposure to a low temperature increase. A craving was felt for animal food, and especially for fatty substances, which in other latitudes would be exceedingly distasteful. "Frozen blubber became quite palatable; and during the second winter, when the temperature of the cabin was rarely above 45°, and often as low as zero, it was found necessary by Dr. Kane, in order to protect his men against the bad effects of the salt, to guard the slush barrels by the strictest orders. The process of acclimatization with us was gradual. I remember well how, in the autumn of '53, we suffered intensely from temperatures, which, a year later, produced no impression upon us; and I am satisfied than this increased power of resistance was in direct proportion to our ability to eat and digest animal food. During a later period of the cruise, some of the party lived precisely the life of the Esquimaux during three winter months, entirely without fire for the purposes of warmth, without suffering any serious inconvenience from low temperatures."

Speaking of the ill effects of salt meat, mischievous not only *per se*, but also because a sufficient quantity of it cannot be eaten, Dr. Hayes mentions a singular effect it had upon the dogs, which had never been accustomed to such diet:—"They could not eat it except in small quantities, and the salt of the meat, the cold and the darkness, operating together upon their feeble bodies, developed a singular epilepto-tetanoid disease, which ultimately destroyed nearly every animal which Dr. Kane took with him from South Greenland or afterwards procured." The same was, from time to time, observable among the men, and doubtless for the same reason.

The Esquimaux for the most part eat their meat raw, and the author strongly recommends the fact to notice, having often found the stomachs of scorbutic patients readily retain frozen, uncooked flesh, while they refused cooked meats. Freezing quite destroys the repulsiveness of raw meat; and the raw flesh of the seal and the walrus, especially if acidulated with a little vinegar or lime-juice, was very generally preferred by the sick. While fresh animal food, and especially fat, is essential in the Arctic regions, alcohol is not only useless, but positively injurious. "Circumstances may occur under which its administration seems necessary; such, for instance, as great prostration from long-continued exposure and exertion, or from getting wet; but then it should be avoided if possible, for the succeeding reaction is always to be dreaded. If given at all, it should be so in very small quantities, frequently repeated. I do not believe that it has a single useful property, not possessed in a ten-fold degree by other stimulants,—and under this head I rank tea and coffee. So valuable are both of these, that I am at a loss to say which is best. The English Arctic explorers almost invariably use tea, and so do the Russians; but Dr. Kane's party, after repeated trials, took most kindly to coffee in the morning and tea in the evening. The coffee seemed to last through the