

XXII. *The Method taken for preserving the Health of the Crew of His Majesty's Ship the Resolution during her late Voyage round the World. By Captain James Cook, F. R. S. Addressed to Sir John Pringle, Bart. P. R. S.*

TO SIR JOHN PRINGLE, BART. P. R. S.

S I R,

Mile-end,
March 5, 1776.

R. Mar. 7,
1776.

AS many gentlemen have expressed some surprize at the uncommon good state of health which the crew of the *Resolution*, under my command, experienced during her late voyage; I take the liberty to communicate to you the methods that were taken to obtain that end. Much was owing to the extraordinary attention given by the Admiralty, in causing such articles to be put on board, as either by experience or conjecture were judged to tend most to preserve the health of seamen. I shall not trespass upon your time in mentioning all those articles, but confine myself to such as were found the most useful.

We had on board a large quantity of Malt, of which was made sweet-wort, and given (not only to those men who had manifest symptoms of the scurvy, but to such also as were, from circumstances, judged to be most liable to
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that disorder) from one to two or three pints in the day to each man, or in such proportion as the surgeon thought necessary; which sometimes amounted to three quarts in the twenty-four hours. This is without doubt one of the best antiscorbutic sea-medicines yet found out; and if given in time will, with proper attention to other things, I am persuaded, prevent the scurvy from making any great progress for a considerable time: but I am not altogether of opinion, that it will cure it in an advanced state at sea.

Sour KROUT, of which we had also a large provision, is not only a wholesome vegetable food, but, in my judgment, highly antiscorbutic, and spoils not by keeping. A pound of it was served to each man, when at sea, twice a week, or oftener when it was thought necessary.

Portable Soup or Broth, was another essential article, of which we had likewise a liberal supply. An ounce of this to each man, or such other proportion as was thought necessary, was boiled with their pease three days in the week; and when we were in places where fresh vegetables could be procured, it was boiled with them and with wheat or oatmeal, every morning for breakfast, and also with dried pease and fresh vegetables for dinner. It enabled us to make several nourishing and wholesome messes, and was the means of making the people eat a greater quantity of greens than they would have done otherwise.

Further, we were provided with Rob of lemons and oranges; which the surgeon found useful in several cases.

Amongst other articles of victualling we were furnished with sugar in the room of oil, and with wheat instead of much oatmeal, and were certainly gainers by the exchange. Sugar, I imagine, is a very good antiscorbutic; whereas oil, such at least as is usually given to the navy I apprehend has the contrary effect. But the introduction of the most salutary articles, either as provision or medicines, will generally prove unsuccessful, unless supported by certain rules of living.

On this principle, many years experience, together with some hints I had from Sir HUGH PALLISER, the Captains CAMPBELL, WALLIS, and other intelligent officers, enabled me to lay down a plan whereby all was to be conducted. The crew were at three watches, except upon some extraordinary occasions. By this means they were not so much exposed to the weather as if they had been at watch and watch: and they had generally dry cloaths to shift themselves when they happened to get wet. Care was also taken to expose them as little as possible. Proper methods were employed to keep their persons, hammocks, bedding, cloaths, &c. constantly clean and dry. Equal pains were taken to keep the ship clean and dry between decks. Once or twice a week she was aired with fires; and when this could not be done, she was smoaked with gunpowder moistened with vinegar or water. I had also frequently a fire made in an iron pot at the bottom of the well, which greatly purified the air in the lower parts of the ship. To this and cleanliness, as well in the ship as amongst the people, too great attention

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cannot be paid; the least neglect occasions a putrid, offensive smell below, which nothing but fires will remove: and if these be not used in time, those smells will be attended with bad consequences. Proper care was taken of the ship's coppers, so that they were kept constantly clean. The fat, which boiled out of the salt beef and pork, I never suffered to be given to the people, as is customary; being of opinion that it promotes the scurvy. I never failed to take in water wherever it was to be procured, even when we did not seem to want it; because I look upon fresh water from the shore to be much more wholesome than that which has been kept some time on board. Of this essential article we were never at an allowance, but had always abundance for every necessary purpose. I am convinced, that with plenty of fresh water, and a close attention to cleanliness, a ship's company will seldom be much afflicted with the scurvy, though they should not be provided with any of the antiscorbutics before mentioned. We came to few places where either the art of man or nature did not afford some sort of refreshment or other, either of the animal or vegetable kind. It was my first care to procure what could be met with of either by every means in my power, and to oblige our people to make use thereof, both by my example and authority; but the benefits arising from such refreshments soon became so obvious, that I had little occasion to employ either the one or the other.

These, SIR, were the methods, under the care of Providence, by which the *Resolution* performed a voyage of

three years and eighteen days, through all the climates from 52° North to 71° South, with the loss of one man only by disease, and who died of a complicated and lingering illness, without any mixture of scurvy. Two others were unfortunately drowned, and one killed by a fall; so that of the whole number with which I set out from England I lost only four.

I have the honour to be, SIR, &c.

Extract of a Letter from Captain Cook to Sir John Pringle, dated Plymouth Sound, July 7, 1776.

I ENTIRELY agree with you, that the dearth of the Rob of lemons and of oranges will hinder them from being furnished in large quantities, but I do not think this so necessary; for though they may assist other things, I have no great opinion of them alone. Nor have I a higher opinion of vinegar: my people had it very sparingly during the late voyage; and towards the latter part, none at all; and yet we experienced no ill effects from the want of it. The custom of washing the inside of the ship with vinegar I seldom observed, thinking, that fire and smoke answered the purpose much better.