It has long been a standing rule in the Navy, enjoined by the 9th Article of the Surgeons' Instructions, that when men are to be sent on shore, in tropical climates, to procure wood and water, or on other laborious duties, the Surgeon, if he consider it advisable, is to recommend for each man, previously to his leaving the ship in the morning, a draught of powdered bark in half a gill of wine, and the like quantity of wine after the mixture; or, if there be no wine on board, one-eighth of a gill of spirits, mixed with the fourth of a gill of water, is to be used in lieu of it; and the same proportion of each is to be given to the men on their return to the ship in the evening. Though this rule has been pretty generally observed in some vessels, particularly in unhealthly climates, and in localities known to abound in the existing causes of fever, still it has nearly as often been neglected, because, in many instances, the bark did not appear to have had any influence whatever in preventing fever; while in others it was alleged so doubtful, that many intelligent medical officers lost all faith in it; and still there were cases occasionally occurring, which showed that its protective influence could not be disputed. For instance, twenty men and one officer were employed on shore for one day at Sierra Leone; to the former, bark mixed with wine was given; but the latter refused to take it. He was the only person of the whole party who was subsequently attacked with fever. Again, two boats' crews were detached from the Hydra to examine the river Sherbro. They remained away a fortnight, and, during the whole time, took bark and wine, as directed by the instructions; yet, though the locality is a most dangerous one, not one case of fever followed; but another boat's crew, who were absent for two days only, in the same locality, and at the same time, did not take bark, and, as far as we can learn, neither did the men have any of the bark of the crew. There are many instances on record in which bark was given to men while exposed to the influence of marsh miasmata, and no fever following, the absence of the latter has been ascribed to the former; but it has sometimes happened also that men have been exposed in the same, or in similar places, without taking bark and wine, or without any strict precaution against contracting any Febrile disease. Evidence of this kind is not of much value, for, whether the escape from fever was owing to the absence of the existing miasmata, or to the unremitting use of the bark, we cannot determine. In the present state of our knowledge, they do not admit of proof. There is no reason to doubt that the only beneficial effects of the bark, such, for example, as the Valley of the Xanthus, and nearly all the alluvial delta in the Gulf of Guinea, and on the Coast of China, are more productive of the existing causes of fever than the use of the bark. As this latter has been practised at a time when they are at another, and there is so little reason to doubt that the human constitution in one time more liable to become affected by them than it is at others, hence the liability to error if we attempt to form any positive opinion on cases similar to the preceding. But, as regards the instances in which all who took the bark escaped, while those who did not take it were attacked, the evidence is much more conclusive.

Besides the doubts which many medical men had, and still have, respecting the preventive influence of bark, there were other circumstances which occasioned it to lose its place as a prophylactic in the Navy. The quantity required for an effective dose is large, and the mixture with wine, or with spirits and water, forms a disagreeable draught, which was generally taken with reluctance, and often evaded. There is no class of men more passive and abject in the face of their subordinates than the seamen of the British Navy; they take what is offered to them, and generally abstain from what is interdicted, with perhaps one exception; but, when not in the "sick list," they are less submissive, as regards any precautionary measures for the preservation of health, than they would, and will, if any risk be implied. Usus taking, for several days in succession, a nauseous medicine, which seems to them to have no influence & action upon the system beyond that of exciting nausea, and sometimes vomiting. Regardless of any visible danger, they do not see the necessity of providing against any that is fortuitous; nor, with their more enlightened superiors, are they so easily convinced, that, under the green foliage of a mangy tree, tip, these generally lurks an enemy, and that it is more dangerous than the weapons of civil war. With these objections against the continuous use of bark as a preventive of fever, it will not soon, to use a phrase that has fallen pretty generally into abeyance throughout the Navy.

The service was published to the Director General, Sir William Burnett, for the introduction of quinine into the medical practice of the Royal Navy at a time when it was but little known, and its utility over bark was still doubted. At first the supply was very meagre, and the great price set at the disposition of the Surgeons, especially as the surgeons were permitted to purchase additional supplies at the public expense, should any unreserved cry go up for the introduction of quinine for the level of disease, it was inadequate for general use as a prophylactic.

Convinced that the preventive influence of bark and quinine were superior to all other agents, I determined to introduce quinine to the African station, in 1847, I suggested that the latter should be given, not exactly on a different plan, though with a somewhat different object. Up to that period, only during the time the men were exposed on shore, or while absent in boats, had any supplies of quinine been understood, for the purpose of acting as a tonic, and thereby protecting the system against the influence of fever-exciting miasmata. Immediately after they returned on board, the supplies were discontinued.

This was evidently wrong; for, although we know that both bark and quinine will prevent the occurrence of apoplectic paroxysms, and probably prevent the development of human life fever, still we do not know, nor have we any reason to believe, that they have any effect whatever in preventing the peculiar exciting causes of fever found in the familiar phenomena, the most intimate germs of the disease. From entering the system, or that they have any permanent neutralizing power over them after they have entered it. It was this which induced me to wish that quinine or quinina so administered had ceased, the evolution of the fever might take place at any time within twenty days from the day the persons were last exposed to them, or to mitigate productive of fever, though in nine cases out of ten the inoperative period does not exceed fifteen, sixteen, or seventeen days. Up to the fourteenth, however, the disease may occur with so much force as on any intermediate day from the first; but after that, if developed at all, it is seldom that the fever either runs high or lasts long. With the most perfect faith in the preventive influence of quinine, and trusting to its well-known antagonism to the re-excitation of fever, in the cases, I am inclined to think it suggested that "quinine being less nauseating than bark, and therefore less likely to be rejected by seamen, it should be used as the primary or sole preventive instead of the bark, and be continued, not only while the men were exposed in unhealthy localities, but for at least fourteen days after they returned on board, in order that the medicating influence of the medicine might be kept up until the inoperative period of the disease had subsided." The suggestion was received, and the results, upon the whole, were most satisfactory.

A strong, spirituous solution of amorphous quinine was mixed with several portions of wine, in the proportion of four grains of the salt to an ounce of wine; a number of cases, or boxes, was then made, capable of holding a certain number of bottles; these, being filled with the medicinal wine, one or two boxes, according to the size of the vessel, were supplied to each cruiser employed on the African station. The effect in supplying the troops with the medicinal wine was not such as might at all times be ready and at hand to put into boats suddenly required to proceed on detached service. Thus the quinine, which, when carried in paper, or bottled up, was not lost or blown away, but had to be given in uncertain doses, and therefore could not be husbanded—was secured, and the wine effectively destroyed for any other purpose. Instructions

for the admiral were placed in note, and I afterwards wrote on the African station:

"I found it was given in a great quantity that they would so

'Eighteen or twenty on February and March, and I directed each person not to take it again.""

"Two boats close in shore, morning breeze odor of deep disease of the regular use by good wind, and the exam to use it (6)."

"The boats of the Vega and Comite, prophylactic and fever, did not obtain contrast to shore fever in March last in crossing to the bar.""8"

"The bark of the land the Mosambique, prophylactic fever, when, after the usual dose of fourteen days, like the quinine, only one of them occurred in ten."

While coal on their several vessels exposed, men for six or eight days or two or three places, in the course of which and he alone at

"A boat's entireief delivered, was discontinued if they came to a town.

During our daily offer & belief of the gale, they were severe attack of apoplectic cases of trilling."

When in the morning of the day, they occurred, thou

30th March:"

(a) 28th March:"

(b) William B."

(c) B."
NAVY MEDICAL REPORT.

Of the administration of the wine according to the above plan was placed in each box, and the medical officers were requested to sample and report the results of the administration in which it is held by the medical officers of the African station.

"Eighters men were detached in the pinnaces and whaler to assist off Banda Point and Mayamba Bay, in the months of February and March. They were absent for twenty-three days, and no cases of disease or fever occurred during that time, and it is satisfactory to state that no sickness whatever occurred."

"The boats remained in the Ponguha one night, and the crews, shore and men amounting to twenty-four in number, were carried to the sun the greater part of two days. Quinquina wine was given in ounces dos for eight days afterwards, and I attribute the absence of the greater part of the people from fever to this treatment."

"It may be stated, that these extracts afford no proof of the preventive value of quinquina, or quinine, but the opinion expressed by the several reports, that this is a strong argument. When taken in conjunction with those which follow they appear in a different light, and form a strong witness in favor of a medicine which has been so long approved."

"During the time the boats were up the Scurvy, I gave an ounce of guina wine to each man daily, and continued the treatment until the men were commencing, and the men were often wet through, I had not a case of illness."

"The boats were frequently away cruising in the mouths of the rivers, or else blockading the coast between Delagoa Bay and Mozambique. I had frequent opportunities of observing the effects of quinquina only in one instance did fever follow its use, and that was of a mild character. This agrees strongly with the severity of a whole boat's crew with fever in March 1851, when no wine was administered, as it was lost in crossing the bar of the river. The men greatly prefer it both to the latter." (c)

"The ship was detached in the Boon-kitten, quinquina wine, in the usual dose, was given morning and evening, and continued for fourteen days after the return. A boy (Wm. Roberts), from dislike to the medicine, looked at most but three doses. He was the only one of the boat's crew that suffered from fever, which occurred ten days after leaving the river." (c)

"While coasting at Sierra Leone, the weather was very wet, and on their several duties both men and officers were unavoidably much exposed to the rain. An unusual allowance of gray guina wine was given to each man, and continued afterwards for a day or two as much as seemed to require it. Mr. ----, however, protests against the preventive influence, and would not take it, and he alone suffered an attack of fever, which proved fatal." (c)

"A boat's crew, belonging to the Ploto, were employed for nearly three days up the Luige. The wine was regularly supplied, but it caused one of the men to vomit, and therefore he discontinued its use; he was the first to suffer from fever. Only one other case occurred among the crew.

"During our stay in the river Lagos quinquina wine was regularly ordered to the men morning and evening—no taste it, I believe, crest two midshipmen and two seamen belonging to the galley. These four persons subsequently each suffered a severe attack of fever." (c) While, in the whole force, consisting of upwards of 250 men, there occurred only a few other cases of trifling importance."

"When in the river Lagos the men had more than an ounce of quinquina wine morning and evening, and not a case of fever occurred, though the vessel was nine days in the river."

"Thirty-six men belonging to the Water Witch were employed at the attack on Lagos; they were in the river four or five days, and, with the exception of three, all took quinquina wine while there, and for fourteen days after they left. Of the whole number, five only were attacked with fever, namely, the three men who did not take the wine, and other two, who most probably, from the badness of the weather, to the sun, and exposure were much heated by violent exercise." (c)

"On the morning of the 28th of November, seventy-seven men from this ship went up the River Lagos to attack the town. Before starting, every officer and man were ordered to take a glass of quinquina wine; and a sufficient quantity was put into the boats to receive them at the same time. This young gentleman, on the 10th of December, just a fortnight after, was seized with a violent attack of remittent fever; and of the whole number who entered the river, he is the only one who, up to this date (the 7th of Jan.), has been attacked." (b)

Among the reports received from the African coast, there are a few which mention the failure of quinine as a preventive of fever; but by far the greater number affirm, that already it has been of most essential service, especially when administered according to the instructions; and that it should invariably prove effective against long-continued exposure in open boats, by night and day, amid the effluvia arising from the rotting aliments of a Marque crew, more noxious than ought to be expected. These are bounds or limits to most things in this world of ours, at least so we are told to believe. The failure of quinine, therefore, in cases similar to the above, probably arises from the omission of this dose, or from the fact, that it was some error committed in administering the medicated wine; it was either not given in sufficient large doses during the exposure, or the dose was discontinued long before the incitative period of the fever had expired; and though it is supposed to have failed, or to have been partially effective to the limit, that the fever which took place were less severe and less fatal than usually happens when no quinine has been administered.

One remarkable fact remains to be stated. By an interesting and ably drawn up report received from Dr. Burton, the Surgeon of the flagship on the African station, it appears, that a crew of doctors among the Europeans in the squadron have for several years past been gradually diminishing, until it has come down to an equality with the Africans. This, it appears, was due to the fact that the Africans were not accustomed to the hardships of life in the navy, while the Europeans were accustomed to them. During the preceding year, the ratio of deaths from disease to the 1000 of men force, only amounted to 69! A result so unexpected must necessarily affect the minds of those who take an interest in the ability of that "hereditary trade" which has braced some of the finest portions of the globe and rendered the coast of Africa a kind of Panacea, fit only to be inhabited by the offshoots of civilized society. Still, though the general use of quinina as a preventive of fever has most unquestionably been so productive of much good, it is not intended to claim for it a tithe of the credit which is due for the improved state of health in the protective service; the ratio of mortality from fever is mainly, if not entirely due to the admirable mode in which the duties of the experiment were conducted out by the justly esteemed Commander-in-Chief, Rear-Admiral Bruck, who, in driving the slave-dealers from their strongholds has never forgotten the important duty of providing for the welfare of the white men entrusted to his care.

In conclusion, I may be permitted to observe, that I have been engaged and obnoxious with which I received only two days ago from Mr. Hitchman, Secretary to the Commander-in-Chief, of the necessity there is for adopting some measures different from those which now exist for the preservation of the health of the seamen employed in merchant-vessels on the coast of Africa. Vast numbers of these men, in the very prime of life, die every year of fever contracted on the coast, and yet no one seems to know anything about them. As these vessels generally carry (for the prevention of scrofulotic disease) a supply of lemon juice, which, in consequence of the great abundance of juicy and sweet, is nearly if not entirely useless, I would venture to submit that, instead of the lemon juice, they ought to carry a sufficient quantity of quinquina for the use of all who should be administered in the same manner as in the men-of-war on the station.

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