

view that death from ether takes place from asphyxia; and, secondly, from its sudden fatal termination, without any previous warning.—I am, Sirs, yours faithfully,

ARTHUR H. W. HUNT, M.R.C.S. &c.,
Wolverhampton, Sept. 2nd, 1890. House Surgeon to the Hospital.

"VOYAGING FOR HEALTH."

To the Editors of THE LANCET.

SIRS,—It is very gratifying to find that the few considerations I addressed to the profession on this subject have met with such approval. The voyage described by Dr. Arthur J. Moss is certainly not one that any intelligent doctor would recommend to his patients. I have been down in the latitudes he describes, and I entirely agree with him as to the climatic conditions. It matters not whether in a steamship or a sailing vessel, the far south voyage to Australia and the return by the Cape Horn route is much too cold for ordinary health-seekers. Moreover, it is the Australian, not the New Zealand voyage, I recommend. Sailing ships going to New Zealand usually go far south, in order to clear the Tasmanian coasts. I am under the impression that very few of them go through Bass Straits to the north of Tasmania. To give some idea of the difference between the weather experienced in our course and that described by Dr. Moss, I will give a few extracts from my log for the outward voyage. Owing to the great strike at the docks last year, the *Sobraon* did not leave until the middle of October. The temperature the day after leaving Plymouth was 55° F. in the shade, and as every day we went farther south it rose gradually, until at the equator it stood at 82° F. On Nov. 14th, in 17° 10' S., the sun was at its zenith; there was no shadow at midday, and the thermometer registered 80° F. The longitude of the Cape of Good Hope was passed on Nov. 30th in 40° 17' S. The entry for that day is "Weather fine. In the Mozambique hot current. Temperature of sea water 65° F.; air 55°, moist." Hence to Australia the course was due east, or, as the sailors express it, "running down the Easting." The average latitude was 42° S.; sometimes the course was as high as 38° 40' S., but only on one occasion did we get as far as 44° S. The average temperature from the Cape to Australia was 54° F., sometimes going up into the sixties, but only once did it fall to 49° F. The lowest latitude reached was on Dec. 20th, when off the Australian coast. My note for that day runs thus: "Lat. 44° 00' S.; Long. 111° 12' E. A beautiful warm day, sun hot, temperature of air 54° F., water 51° F., wind W.S.W. Day's run 270 miles. Gave ambulance lecture to passengers on deck."

On Christmas Day the weather was delightful. Divine service was held as usual on deck, and two days after, on the seventy-fifth day of our voyage, we arrived in Melbourne. On the homeward voyage between Australia and the Cape of Good Hope the course lay along the edge of the tropics; the sea was usually smooth, and there was no rain. The temperature was always over 60° F. A few boisterous days when "doubling" the Cape of Good Hope were the only bad weather on the voyage. From the Cape up to St. Helena is the finest piece of sailing in the world; the wind blows steadily from the south-east, and the sea is smooth. From St. Helena home the weather was as fine as it had been going out. It will be understood what a delightful time the homeward voyage was when I mention that most of the passengers wore light flannels from the time we left Australia until we arrived in the English Channel. If all sailing passenger ships were run on the same lines as the one in which Dr. Moss had his very unfortunate experience, I would most assuredly agree with him in his denunciations of them. No one but the strongest man ought to venture to sea under such circumstances. Some of the great drawbacks to voyaging for health in steamers have been so well insisted on by Dr. J. W. Keyworth in THE LANCET of August 23rd that I will not further allude to that subject. I will conclude this notice of the voyage I advocate for invalids by recommending that the medical adviser should not consider his duty done when he has prescribed for his patient a sea voyage. He should make inquiries as to the ship, the time of starting (which should be at the very latest October), and the course taken out and home. He should also advise his patient to seek

professional aid in Australia to determine what part of that continent he ought to visit. As this latter is a very wide subject, I will only give a few general hints. A patient who leaves England in the early autumn, and goes by sailing ship, will probably arrive in Australia about Christmas, the middle of the southern summer. It is madness to remain more than a few days in Melbourne or any other large town. What I advise the passengers to do is to go up to the mountains or the high table-lands of New South Wales, which may be reached by either train or boat from Melbourne; to go across the Straits to Tasmania, where they will find a second Devonshire; or to go on to New Zealand. If they are going to return by sailing ship they will have about two months to spend. If they spend this time in the large towns the chances are that they will begin their homeward voyage much exhausted, and it will take them a considerable time to regain their lost strength; whereas if they are content to lead a quiet easy life "far from the madding crowd," they will be enhancing the value of their voyage.

In conclusion, permit me to say that I will gladly give any information in my power to any medical man who will address me in care of Messrs. Green and Co., 15, Fenchurch-avenue, E.C.

I am, Sirs, yours obediently,

HENRY M. DOYLE, M.R.C.S., L.R.C.P. Lond., L.S.A.,
Late House Physician and Receiving Room Surgeon at the
London Hospital, and Medical Officer of the ship *Sobraon*.
August, 1890.

CHOLERA.

To the Editors of THE LANCET.

SIRS,—I do not profess to know the nature of the bacillus which generates cholera, nor do I consider, from a practical point of view, that it is of any moment whether it assumes the characteristics of a comma, semicolon, or full stop. The problem to be solved is certainly the prevention of the disease, and doubtless proper hygienic precautions will lessen the frequency of the outbreaks. For the present, it suffices to observe the predisposing causes and the most effective treatment. The love of speculation leads me, however, to opine, and not altogether without reason, that no matter how the virus may be generated, the dissemination is effected by means of the winds. The probability of this surmise is strengthened by the fact that birds desert a locality several days prior to the advent of cholera. This circumstance might be merely concomitant, but, if so, it is a coincidence oft-repeated and one of such reliability that on several occasions when in India I was enabled to predict the outbreak of cholera in a house several hours and on more occasions than one some days before its appearance.

A second speculative conception is that the poison may lie dormant in the system until some favourable condition ensues for its further development. A night's debauch, a fit of intoxication, excessive fatigue of any kind, mental anxiety, the eating of unwholesome meat or unripe fruit, all favour the development, though they do not actually produce the disease. Assuming the correctness of this theory, it is not difficult to understand the reason of a strong and apparently healthy man being suddenly prostrated by the disease. The poison is present in the system, but inert, and any act of over-exertion weakening the resisting power of the constitution, or an error in diet, causing irritation, will originate those conditions which are necessary for the development of the poison.

A third idea, supported by observation, is that the wave of cholera rises to a maximum of intensity, falling to a minimum, possibly to rise again, and subsequently to fall. The nearer the cases approach the maximum point the greater the fatality, and the further distant from it the larger the percentage of recoveries. The initial attacks are usually so mild as to be designated choleraic diarrhoea, the next series are moderately severe, the subsequent ones severe, very severe, and fatal, descending inversely to very severe, severe, moderately severe, and mild. Cases do terminate unfavourably which are not within the "fatal zone," owing to the patient's weakened constitution and other extraneous causes, one of the most common of which is opium poisoning. Unless a similarity exist between death from cholera and the symptoms of opium poisoning, I maintain that the mortality outside the fatal zone is mainly dependent on the administration of