

2d, Deficient supply of food.

3d, Filth and imperfect ventilation.

It would be difficult to find any place where these three circumstances are combined in such a degree as in the hold of an Irish passenger vessel. Firstly, in addition to the usual dampness of a ship, you have in an emigrant vessel the humidity caused by the daily distribution of fresh water in small quantities to each individual passenger, and which, being kept by them in tins and pots in and under their sleeping berths, gets capsized very often by the rolling of the ship, and thus adds to the general dampness; and, in ill-regulated vessels, the passengers are permitted to wash their clothes in the 'tween decks. The air of the hold is thus always surcharged with moisture, while its temperature is kept up by the heat given off by an accumulation of living bodies.

2dly, The supply of food is in many cases limited to a pound of bread-stuff, or oatmeal, to each adult per diem, and this often in a mouldy and damaged state. Thousands of the emigrants who arrived in Canada last season had no other sustenance on the voyage.

3dly, The peculiar nature of a ship's hold is such, that ventilation, while the ship is under weigh, is all but impossible, in the only way in which perfect ventilation is obtained, viz., by passing a current of pure air *through* the hold. Wind-sails effect this in a very insufficient manner; and when, in rough weather, it becomes necessary to fasten down the hatches, the little supply of air which enters by them is shut out. Of the passengers a great proportion are women and children, who are unable, in many instances when the weather is stormy, to avail themselves of the miserable "*cabinets d'aisances*," (as when these do exist they are generally placed in the bows of the ship,) and are consequently obliged to pass their evacuations in the hold. You have here combined all that could by any possibility generate a foul atmosphere; and when to this you have febrile miasma, the only wonder is that any escape the disease, as there is no running away from it. On visiting a passenger vessel, such as thus described, in a morning before the emigrants have come on deck, I have seen a stream of foul air issuing from the hatches as dense and palpable as seen on a foggy day from a dung heap or range of hot-beds; and rarely did I find it necessary to inquire if fever prevailed on board; that peculiar and characteristic odour which belongs to Typhus Fever patients was perceptible to the senses on stepping on the deck. To the foregoing causes ought to be added, the moral and depressing influence of fear of shipwreck, and grief at leaving their native land—both powerfully predisposing causes of fever.

The character of the disease, as witnessed at the Quarantine Hospitals, did not differ essentially from that so often and so well described in this country, as well as in Europe. The three great systems were found affected more or less in all cases. In some instances, the organs constituting the nervous system were more prominently affected; such cases were more frequently seen in the better fed seaman, or English emigrant, who were occasionally found mixed up, in Liverpool vessels, with the Irish. In these cases the disease was ushered in with intense headach, great pain in the back and limbs, blood-shot eye, and early furious delirium. In some rare instances the sensorial faculties were overwhelmed at once as completely as in apoplexy. A stout healthy young man of 18, was struck down with such an attack on board the barque "*Gilmour*," in which vessel he was an apprentice: he expired in twelve hours. A similar case was witnessed in the ship "*Mail*," from Liverpool; a stout seaman was attacked, and death supervened with equal rapidity. Both these vessels were unusually sickly. These cases are cited to prove the power of concentrated miasm acting on the nervous system.

The organs of secretion and excretion were more frequently affected than any other; such cases were invariably found most troublesome to treat, and more frequently had a fatal termination. Frequent observation convinced us of the correctness of Dr. Cheyne's remark, that dysentery was sometimes converted into fever, while, *vice versa*, fever was converted into dysentery. When the symptoms of fever were exchanged for those of dysentery, it was probably by the irritation of the mucous coat of the small intestines and stomach extending to the large. Sydenham expressed the opinion, that dysentery is a *febris introversa*, or turned in upon the intestines.

Cases in which derangement of the circulating system predominated, were not of such frequent occurrence as compared with others.

*Petechiæ* and maculæ were found in many cases, but were not so constant and universal as to justify our classing Typhus in the list of exanthems. Epistaxis was a troublesome accompaniment, and such cases where they did not terminate fatally, had a long and tedious convalescence. Dr. Benson, one of the medical attendants at the Quarantine Hospitals last season, a gentleman advanced in years, and for a long period connected with a large fever hospital in Ireland, fell a victim to an attack in which great hæmorrhage from the nose and fauces was a prominent symptom. On its advent he resigned himself to death, saying he had