

the depôt, the hospital had been filled with emigrants, and it was necessary to seek for lodgings for the sick in the town. This accommodation was obtained with difficulty, the result being that healthy and sick were crowded together for hours longer than necessary, and the town itself afterwards exposed to the contagion by the sick being placed in their midst.

3. The next point presenting itself as a probable cause of the disease is that of the ship sailing with emigrants out of whose midst but a day previously both scarlet fever and measles cases had been removed.

There cannot be a reasonable doubt that if these people had been detained on shore, and placed in well-ventilated quarters, the sick being removed from them the moment disease presented itself, the epidemic would have been much lessened in extent and severity.

4. The large proportion of children to adults may be placed next as contributing to the mortality. Including with heads of families the single men and single women, there were on board, in the total number of emigrants, two children to every three adults. It will be readily seen that an attack of scarlet fever would tell with double force on such a company, compared with one in which, the totals being the same, the number of children shows a smaller relative percentage.

It is a curious fact that on board the "Mongol" the large number of deaths occurred not in the large but in the small families. The following is interesting as showing this:—The total number of children on board contained in families of one, two, and three was sixty-two; and out of this number nine died; whilst the total contained in families of four, five, six, and eight was also sixty-two; and out of this number but six died. There is thus, from this limited experience, no drawback in carrying large families.

5. Want of suitable provisions in sufficient quantity appears to me, although not an exciting, yet a strong predisposing cause, of sickness and increased mortality, especially in presence of an epidemic.

And here I must refer to a failure of certain of the provisions for the children on board the "Mongol." When twenty-six days out, the supply of eggs and of preserved egg was completely exhausted, and in their place preserved meat was issued to the children; and when twenty-eight days out, I was obliged, as our supply of arrowroot and sago was almost used up, to limit these to the use of the sick, and issue in their place bread to the children. About this time also the supply of milk fell short; and had it not been that extra milk stores were on board, we should have been placed without this essential article of children's food.

Amongst the medical comforts, barely one-third the quantity of preserved milk mentioned in the charter-party (a charter-party, however, which is disputed by the captain) was shipped; and no beef-tea, although our ship should have been provided with 60 tins. I place these facts here without comment.

6. I must record here what occurs to me as another cause of the mortality on board, viz., neglect of parents towards their children. In nursing, in cleanliness, and especially in giving a sufficient quantity of well-prepared food, I have found much to be disappointed with amongst mothers under my charge.

The above appear to me the leading causes of the avoidable sickness and death now being inquired into, and to remove them the following present themselves as suitable measures:—

1. A careful inspection of each family at their home, and also before being placed in the depôt. When proceeding on board, each emigrant ought also to undergo a thorough medical examination at the hands both of the inspector and of the surgeon-superintendent receiving them.

2. The depôt accommodation at the port of embarkation ought to be amply sufficient to allow of the removal of the sick from the healthy the moment they are discovered to be so, and sufficient also to completely isolate their families in case of infectious disease.

3. When there is, as in the case of the "Mongol," almost the certainty of infection being carried on board, greatly increased hospital accommodation ought to be provided before the ship sails. There would then be some possibility of isolating the sick, and thereby removing contagion from the healthy.

The "Mongol" carried the space allotted by the Passengers Act, and in this were erected seven beds; but it will readily appear how inadequate this was. This was to afford accommodation during the epidemic amongst 300 people berthed together.

4. There comes next under consideration the dietary and nursing arrangements of the children, by far the most important subject that I have yet touched upon. I have gone carefully into the diet scale, and believe that, so far as the children are concerned, it is faulty in the extreme. This scale provides for those from four to twelve years half an adult's portion, a quantity amply sufficient, but in the nature of the food not at all what a child in a healthy state desires and requires. Take the instance of a child four years old: from him milk is wholly excluded, and of bread he receives 12 oz. weekly, a supply which he could readily consume at two single meals.

For the rest, he receives the main portion of his food in salt and preserved meat and hard biscuits, with 12 oz. of flour for a week's supply, and this not alone to the child of four years, but to the children of eight and ten, an age when the craving for bread can be hardly satisfied. I have had fathers and mothers come to me repeatedly and beg for bread for their children. I have been assured by parents that they had hardly touched their own issues of bread since they came on board, in order to satisfy the wants of their children. To such an extent did this bread difficulty reach, that I was at last obliged to issue bread amongst the medical comforts to convalescent children. It may be said that biscuits form a suitable substitute; but it was not so on board the "Mongol," and many a bucketful went overboard as waste, when not a crumb of bread could be picked up amidships.

Placing the children in messes with the adults I regard as the next faulty arrangement. If it be conceded that the food supply should be different from that of the adults, it follows that a separate mess is the most natural arrangement. This brings me to some suggestions which I would respectfully submit for careful consideration, viz., a separate children's table, the idea being gathered from some experience of Indian ships, on board which many children are carried. I would suggest that children