

1883.

NEW ZEALAND.

THE IMMIGRANT SHIP "OXFORD"

(REPORT OF THE ROYAL COMMISSION ON).

Presented to the House of Representatives by Command of His Excellency.

No. 1.

Dr. GRABHAM to the Hon. the MINISTER for IMMIGRATION.

SIR,—

Wellington, 29th August, 1883.

I have the honour to forward herewith the report of the Commission appointed to inquire into the origin and existence of infectious and other disease on board the barque "Oxford" during her voyage from Plymouth to Port Nicholson, together with the Commission issued by His Excellency the Governor, the evidence taken by us, Surgeon-Superintendent's report, and Parliamentary Paper, D.-4.

I have the honour to request that you will be good enough to forward these documents to His Excellency the Governor.

I have, &c.,

G. W. GRABHAM, M.D.,

Chairman of the Commission.

The Hon. the Minister for Immigration.

Enclosure.

COMMISSIONERS' REPORT.

MAY IT PLEASE YOUR EXCELLENCY,—

Wellington, 29th August, 1883.

We, the Commissioners appointed to inquire into the origin and outbreak of typhoid fever and other circumstances attending the voyage of the barque "Oxford" from England to Port Nicholson, having proceeded to make inquiries intrusted to us, and having taken evidence, have the honour to report that we have elicited the following facts:—

The Commissioners regret that they have not had the advantage of seeing the detailed report of the circumstances attending the first voyage of the ship, promised by Sir F. D. Bell, but not yet to hand. (*Vide* Parliamentary Paper, D.-4, 1883, page 6.) In the absence of this important information they have felt it necessary to make some inquiries regarding the dépôt at Plymouth, the condition of the ship when joined by the emigrants, and other matters which might throw light on the origin of the outbreak of typhoid fever.

The Dépôt.—While complaints of the dirty state of the establishment and the want of such ordinary comforts as the severity of the weather would render essential are almost universal, it would appear that good health prevailed amongst its inmates previous to the first voyage, and that the cause of the disease must be sought elsewhere. The establishment, however, was faulty in various respects: the sleeping accommodation as described by the married witnesses being absurdly small, and the filthy condition of the bedding almost incredible; vermin appear to have abounded; a proper supply of bed-clothing for the existing cold weather was not forthcoming; and a considerable amount of unnecessary harshness seems to have been displayed in the management, more particularly with regard to the women and children. A considerable amendment is stated to have occurred during the visit of the Agent-General, for whose inspection special preparations were said to have been made. The Commissioners would, however, point out the evidence of Henry Jay and others, as showing the filthy state of the establishment and the bedding.

The Ship.—Suggestions have been made that hides and other offensive matters had been carried as cargo on a previous voyage, but evidence and examinations of log-books clearly prove that corn and seeds only had been taken on the two last occasions. The vessel herself is roomy and airy between decks, and certainly gives the impression that she is well suited for the conveyance of emigrants. It is right, however, to state that the fittings had been removed before our inspection, in accordance with the usual practice on going into quarantine.

First Voyage.—The quality of the water carried on this occasion calls for no remarks from us, as the certificate furnished by the Board of Trade sufficiently condemns it as unfit for use. (*Vide*

Parliamentary Paper, D.—4, 1883.) It would be interesting to learn whether other ships using the same supply have also suffered.

Complaints were made as to the wet and dirty condition of the main or passengers' deck on joining the ship for the first voyage. The assistant-cook fell ill shortly after leaving London, and remained so until landed at Cardiff. His symptoms, as described to us by witnesses, are not incompatible with those of a mild attack of typhoid.

The outbreak of fever on the first voyage has already formed the subject of a report by the Agent-General, and need not be gone into here.

The Repairs, &c., of the Ship at Cardiff.—The water-tanks are stated to have been emptied by means of a force-pump into the dock and then whitewashed. The Commissioners find that, after using the pumps as far as possible, a quantity of water remained in each tank, and that this was removed with buckets and swabs; a good deal was slopped about, and no doubt found its way into the bilges and fouled them.

The ship was fumigated more than once, but that the hold was not affected or purified is shown by the survival of numerous rats which made their appearance shortly after. The cargo hatches were not removed during the fumigation.

The Commissioners are informed that the bedding which had been used by the emigrants was given to the poor at Cardiff after fumigation.

The condenser appears to have been removed at Cardiff for repairs, and advantage was taken of the opportunity for cementing the leaky brick flooring of the engine-house. It is to be regretted that some more efficient means was not adopted for making it watertight, cement being sure to crack with the straining of the vessel. A lead lining would have been effective; whereas great inconvenience was suffered on the subsequent voyage through the want of a proper floor, and considerable leakage occurred, as seen by the evidence of the immigrant Marshall.

The tanks were inspected before they were refilled by an officer of the Board of Trade.

The stores and provisions for the use of the immigrants were good, as shown by the evidence and by the examination by us of the residue left on arrival in port. Complaints regarding the bread point to an inefficient baker.

There was, however, a deficiency of small stores, which do not appear to have been replenished at Cardiff or Plymouth, and a great want of candles. Some of these goods were, moreover, improperly stowed and inaccessible until the removal of some tanks at the termination of the voyage.

The first case of typhoid fever on the second voyage occurred on the 18th May, and eight altogether were attacked before reaching Wellington, of whom two died. The disease was almost entirely confined to the single men and single women. The only other case in the married-people's compartment was that of a child who fell ill almost at the conclusion of the voyage.

The condenser was only worked fifty-nine days; it consumed so much coal that had the voyage been protracted a sufficient quantity would not have remained for cooking purposes.

Leakings of the decks occurred in several places, as pointed out by the surgeon in his report and evidence.

We find that before joining the ship on the second voyage the whole of the immigrants were very carefully examined by a medical officer of the Board of Trade, and by the surgeon-superintendent. All appeared to be free from infectious disorder, but the bad physical condition of some of them is remarked upon by Dr. Wasse in his report. One young woman brings a certificate from an English medical practitioner to the effect that she is in the second stage of phthisis, and that a voyage to and residence in New Zealand may possibly do her much good.

Proper hygienic measures appear to have been carefully followed by the surgeon-superintendent during the voyage, and his treatment of the patients appears to have been careful and judicious. Every available precaution was adopted by him to check the spread of the outbreak, which resulted in two fatalities from a total of eight persons attacked during the voyage. Fortunately this was a short one; had it been protracted, the result must have been disastrous, judging by the number of those who developed the disease shortly after landing.

As regards the management of the ship nothing has been elicited which reflects the slightest blame upon the officers and crew; on the contrary, the captain appears to have been kind and attentive to the immigrants.

REMARKS AND RECOMMENDATIONS.

We consider that it would be wiser in future to avoid sending immigrants by a ship in which an epidemic has recently occurred, and from which the cargo has not been removed, so as to enable a thorough fumigation, cleaning, painting, and disinfection of bilges and all other parts to be carried out.

We would draw attention to the want of proper supervision which occurred in the case of the single women when sent from the dépôt at Plymouth into private lodgings; this being as necessary for sanitary as for moral reasons.

The surgeon-superintendent in his report speaks of the insufficient bed-clothing provided on board the ship; of the grave inconvenience caused by the want of candles, children's stores, spare glass, and tarpaulins; also of the leakiness of the decks: these are matters worthy of consideration.

We would point out that an apparent discrepancy exists in the contract for the conveyance of immigrants, &c., to New Zealand as to the quantity of preserved soup to be shipped and to be issued to each child.

The quantity of coal originally taken on board was seventy-five tons, which is certainly not more than is required to keep the condenser working in accordance with the regulations. What amount was consumed on the first voyage, and during the refitting of the vessel, we have no means of ascertaining; but great neglect occurred in not making up the deficiency before commencing the second voyage.

With regard to the outbreak of fever on the first voyage, although the water was the probable cause, it is quite possible that the disease may have been introduced in another way, and we think the illness of the assistant-cook might possibly have some connection with the matter.

The fouling of the bilge-water, which undoubtedly occurred in emptying the tanks at Cardiff, is, in our opinion, of much greater importance as a possible cause of the reappearance of the fever.

Although on the second voyage complaints arose as to the rustiness or muddiness of the tank-water shipped at Cardiff, there is no reason to believe that it caused any illness; in fact, the first case of fever came under medical treatment when this water had only been four days in use, and could not therefore have been caused by its use.

We are of opinion that that the patient (Silva) alluded to in the last paragraph may have contracted the disease before embarking, and that in the succeeding case of Miriam Taylor, although the length of time which elapsed between embarkation and the commencement of her illness is longer, the same possibility exists.

We think that the hospital provided for the single women was a suitable one. That for the single men was too small and too little ventilated, especially when bad weather compelled the closing of the door.

The deckhouse used by the apprentices would have been far more suitable for a hospital, but the captain informs us that he could not have spared it for that purpose, having no room for the apprentices elsewhere.

We forward for the information of your Excellency the following papers: Commission; Evidence; Surgeon-Superintendent's Report; Parliamentary Paper, D.-4; Copy of Minutes.

GEORGE WALLINGTON GRABHAM, M.D., Chairman.
J. HENRY, L.R.C.S.L., L.C.S.
J. HACKWORTH, Collector of Customs.

This report is a summary of the work done during the period from 1-1-55 to 1-1-56. It is intended to provide a general overview of the progress made and the results obtained. The work has been carried out in accordance with the programme of work approved by the Committee in 1954.

The work has been carried out in three main areas: (a) the study of the properties of the system, (b) the study of the dynamics of the system, and (c) the study of the stability of the system. The results of the work are presented in the following sections.

(a) The study of the properties of the system. The first part of the work was devoted to a study of the properties of the system. This was done by measuring the various parameters of the system and comparing the results with the theoretical predictions. The results show that the system behaves in a manner which is in good agreement with the theory.

(b) The study of the dynamics of the system. The second part of the work was devoted to a study of the dynamics of the system. This was done by measuring the time constants of the system and comparing the results with the theoretical predictions. The results show that the system has a time constant which is in good agreement with the theory.

(c) The study of the stability of the system. The third part of the work was devoted to a study of the stability of the system. This was done by measuring the gain margin of the system and comparing the results with the theoretical predictions. The results show that the system is stable and has a gain margin which is in good agreement with the theory.

The work described in this report has been carried out under the supervision of the Director of the Institute. It is a pleasure to thank the Director for his interest and support. It is also a pleasure to thank the staff of the Institute for their assistance during the course of the work.