



Pg. No. 349

EA. PROT. 25295

25295 1915

HT 1412

Gov's Depy 345 Rowing

1915

24th April

Last previous Paper: 10818 nys

TYPHOID FEVER ON LAKE STEAMERS AND IN UGANDA

This copy of letter from the P.M.O. with enclosure respecting spread of fever. Promise further report after proposed meeting at Kisumu.

Mr. Fiddian

H. J. R. 2/6/15

~~Mr. Butterfield~~
Mr. Reed

We need to do any thing except print, which is being done) until the further report arrives (see for 2 of desk), but if we do not get it in 2 months we should ask what is happening.

De van Someren's letter of 8 Jan. was irritating, but the rest of the stuff is however, Marine (whose name does not appear) is that officer who has been appointed to the letter it is, not both of them. Def. 5/15
H. J. R. 7/6/15

What's copy in 1822-1825
See 45984-15
Further enclosed. 1822-1825

Next subsequent Paper: 45984

W. 21,000-15, 45,000 15/12, 2,200 W. 21,000-15, 45,000 11/74

The Uganda people can hardly come coming at once
H. J. R. 7/6/15

Mr. Bottanly

If nothing comes by post send,
remind you of how I like the desk.

AF.
7/15/15

C.A.S. 9/8/15 at home

From 3

25295

GOVERNMENT HOUSE
NAIROBI.
BRITISH EAST AFRICA

AFRICA PROTECTORATE

April 28th 1915.



350

Sir,

10818
uqa

With reference to your despatch No.156 of the 11th ultimo, I have the honour to transmit herewith a copy of letter from the Principal Medical Officer with enclosures on the subject of the spread of Typhoid fever on the Lake Steamers and Uganda.

P.M.O.
enclos.
15

2. A further report will be forwarded after the meeting which the Principal Medical Officer proposes should be held at Kisumu.

I have the honour to be,

Sir,

Your humble, obedient servant,

J. Rowley
GOVERNOR & Deputy

RIGHT HONOURABLE
LEWIS HARCOURT, P.C., M.P.,
SECRETARY OF STATE FOR THE COLONIES,
DOWNING STREET,
LONDON, S.W.

In Despatch No. 343 of 28 2 1915

1915

No. 28/801.

MEDICAL DEPARTMENT,

HEADQUARTERS OFFICES,

Nairobi, 19th April, 1915.

25235

1 JUN 15

Sir,

Spread of Typhoid Fever in Lake Steamers
and Uganda.

In reply to the request contained in the Secretary of State's despatch No. 156 of 11th March, I have the

honour to forward the marginally noted correspondence on the subject.

2. From the correspondence it will be seen that there are two periods indicated during which representations were made for action to be taken. Up to the early part of 1913 various

Oct. 6th 1913. From M. O. H., Kisumu, to Chief Sanitation Officer, Nairobi.

Feb. 9th 1914. From Hon. General Manager, U. N. Y., with six enclosures, and the subsequent correspondence.

Dec. 24th 1914. From the P. M. O., Uganda to the P. M. O., British East Africa, with two enclosures.

March 4th 1915. A precis by the P. S. O. of the action taken since 1910 regarding lake shipping.

minor improvements were effected but the major question of a pure water supply to Kisumu, sanitation of the port and the structural modification of the steamers were matters deferred until November, 1913, when Professor Simpson in conjunction with Dr. Radford and myself investigated these matters some three months ^{before} the request of the General Manager that a Medical Officer should be detailed specially for that purpose. Both Dr. Radford and myself felt that a further set of recommendations would be useless as any made would inevitably have to stand over until Professor Simpson's views of what was necessary to be

The Honourable,

The Chief Secretary,

Nairobi.

to be done could be considered.

3. Professor Simpson's Report did not reach this country till November 1914, and came at a time when the attention of the Medical Staff was very fully absorbed in the military situation which had been created. Thus there was a further delay, and it was not till the beginning of the year, owing to relaxing pressure that my attention was directed to the condition of affairs of the Lake.

4. This second period refers to the outbreak of Enteric to which attention was directed by the Uganda authorities subsequent to Professor Simpson's departure and the receipt of his report.

5. It must be remembered that whatever is done to put the sanitary arrangements of the ships in a proper footing will be practically negative unless coincident with the sanitary arrangements at the Port of Kisumu are also satisfactory. Thus a ship with complete arrangements made for a pure water supply at sea will not be in a position to maintain this when tied up alongside ^{the} quay in an insanitary port with fires out - unless special arrangements are also made on shore - both matters involving considerable expenditure.

6. Prior to the receipt of your letter I had arranged with the General Manager that a consultation should be held in order to submit definite recommendations; I now propose that both Dr. Radford and myself should proceed to Kisumu at an early date to go into the matter with the Marine Superintendent.

I have the honour to be,
Sir,
Your obedient servant,

SD/- A. D. Milne,
Principal Medical Officer.

Health Office, Kisumu.

6th. October 1913.

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Copy forwarded to the Marine Superintendent, Kisumu.

The Chief Sanitation Officer,

Nairobi.

Sir,

I have the honour to inform you of, in my opinion, the unsatisfactory arrangements for the supply of drinking water on the Lake steamers. Three of these have as yet only been inspected.

The S.S. Clement Hill has a special pump to fill the drinking water tanks, and tanks in which water for the manufacture of soda water is carried to Kisumu. Both of these supplies are taken from the main Lake. But in the stewards pantry there is one tap which is supplied from the sanitary tank. This tank supplies also the baths and lavatories and therefore is filled while the ship is alongside the wharf at Kisumu.

The S.S. Nyansa Europeans have a separate tank for the supply of drinking water and there is a pump which is only in use for the filling of this tank.

The crew are supplied from the sanitary tank which requires to be filled while the ship is alongside the wharf at Kisumu.

The S.S. Winifred has two taps in the steward's pantry supplied under similar conditions as those mentioned for the S.S. Clement Hill.

The drinking water tanks are filled by attaching a hose to a pipe, the latter of which is also in use for the washing of decks.

The same pump is in use for supplying the sanitary tank and drinking water tank.

For the present instructions regarding certain minor details have been forwarded to the Marine Supdt: so that the purity of the water supplies may be improved. Should inoculation against typhoid fever of the Europeans employed on the ships be advised?

I doubt at present whether dishes may not be washed by the sanitary tank supply; also whether the drinking water may not occasionally be taken from this source.

Special pumps supplying the drinking water tanks (the latter only to be filled from the main Lake) also all taps in the stewards pantries and the galleys would improve the supply.

The position chosen on the ship for the intake is also believed to be an important matter.

I have the honour to be,

Sir,

Your obedient servant,

Edw. A. Mount,

Medical Officer of Health.

The Marine Superintendent,
Kisumu.

In the meantime the greatest care should be taken with reference to the following:-

- (1) Thorough flushing of the pipes, pump, and hose pipe before filling ^{of} drinking water tank.
- (2) Closing of latrines while the ship is alongside the wharf.
- (3) Washing of dishes etc, with clean water i.e. that from the drinking water tanks.
- (4) Care that the hand-pumps are only drawing from the drinking water tanks while the ship is alongside the wharf at Kisumu.

I have the honour to be,
Sir,

Your obedient servant,

Sd/- A. Mount,
Medical Officer of Health.

14/2/1914.

No. B/20/22
184.

General Manager's Office,
Nairobi, 9th. February 1914.

The Principal Medical Officer,
Nairobi.

Sir,

Fresh Water Supply for Steamers.

I have the honour to send you copies of correspondence on the subject of the supply of fresh water on the Lake Steamers and shall deem it a favour if you will kindly depute an ~~officer~~ officer of your Department to inspect these vessels in company with the Marine Superintendent, and the Superintending Engineer and submit a report to you.

2. We are anxious to make the installation on these steamers as safe as possible and minimise the chances of disease and shall be glad to receive your assistance in the matter.

I have etc. etc. etc.

(Sd.) H.B. Tayler.

General Manager,

Uganda Railway.

encl. 6.

Marine Supdt's Office,
Kisumu, 1/2/14

Encl. No. 2
1

To

Hon. The General Manager,
Uganda Railway,
Nairobi.

Sir,

Fresh Water Supply for Ships.

Enclosed.

I have the honour to send you herewith copies of correspondence re this matter and shall be glad if you will have the case put before the Principal Medical Officer with a view to having such alterations, as he may deem necessary made.

I have etc. etc. etc.

(Sd.) H. Grant,
for Marine Superintendent,
Uganda Railway.

No. 6101B.

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Marine Supdt's Office,
Kisumu, 30th. January 1914.

To

The Principal Medical Officer,
Entebbe.

Sir,

I have the honour to acknowledge the receipt of your memo of January 14th. under cover of which you forward a letter from Medical Sanitary Officer, Entebbe.

Upon receipt of this letter I requested Mr. Grant to reply very fully to Dr. Van Saemeren's criticisms and this he has done vide copy attached.

2. I am placing the correspondence before the General Manager with a suggestion that full details of our fresh water supply should be put before the Principal Medical Officer and that such alterations as he may deem necessary shall be made and that these alterations shall be considered final.

I have etc. etc. etc.

(Sd.)

Marine Supdt. Ug. Railway.

January 1914.

To

The Marine Superintendent,
Kisumu.

359

Sir,

I have the honour to acknowledge receipt of your memo attached to a report sent by the Medical Officer Jinja to the Principal Medical Officer, Entebbe animadverting upon the water supply and drainage arrangements upon the S.S. "Winifred".

(2) So serious do I consider the criticisms offered by the Medical Officer of Jinja, and so utterly baseless in fact are many of his statements, that I shall be forced to reply at some length and request you - in view of the wide publicity given to these statements by the Medical Officer - to forward copies of my letter to the Honourable General Manager and to the Principal Medical Officer of both Uganda and British East Africa.

(3) Generally the letter of the Medical Officer bears in its radical misstatements of fact a close family resemblance to those which I attach from the Commander of the "Winifred" on the subject of water supplies etc. in "Winifred". How far it is either permissible or desirable in the interests of their Department for Officers of our fleet either directly or indirectly to involve us the Gen. General Manager and Medical Departments in correspondence and discussions based on wholly inaccurate premises I leave you to judge. In this case the Commander of "Winifred" has displayed a lamentable ignorance of his own ship.

It would appear preferable if sanitation matters were dealt with by the Medical Officer of Health Kisumu the Head quarters of the Fleet and I ask you to arrange this with Principal Medical Officers.

(4) The letter of the Medical Officer Jinja No.2/J/14 is stated to be a continuation of his 36/J/13 dealing with some cases of Ptemanic which were ascribed to the "Element Hill" during November 1913, though in the letters on the subject the feed supplied by that ship came in for the brunt of the blame not the water supply.

(5) Paragraph (2) of Medical Officer letter deals with the filling of the piping and hoses of the Fire and Deck service pipes.

Two of our ships are fitted with independent pumps and pipes connecting direct to Fresh Water tanks and used for no other purpose, whilst the others are being similarly altered.

Personally I have never endorsed this idea as being necessary (being both cumbersome and costly) in a ship staffed with two to three European deck officers upon one of whom the duty of seeing the pipes and hoses well flushed and the Fresh Water Tanks filled once or twice per week could not sit heavily.

The native does not need to "think" of flushing the hose as stated by the Medical Officer for it is ~~automatically~~ automatically done for him, the practice being on completion of the washing down of deck (out of port) to turn on the hose to the fresh water tanks should they require filling.

The Medical Officer's last statement in para (3) that "the drinking water tanks are below ~~xxx~~ deck and can be cleaned out only when the ship is in deck once a year" is so ludicrous as hardly to require comment. One wonders how far credulity will go?

The hold being empty one can gain easy access to these for cleaning purposes is essential it being one of the first duties of a sailor to periodically satisfy himself as to the cleanliness of these tanks.

(6)

(e) I will now proceed to speak of para (4) of the Medical Officer report which deals with what he calls the "second" pump though this is technically known as the "galley" pump. True, the pump itself is distant ~~xxx~~ some 4 yards from the native "latrine" but the suction valve from the Lake to this pump is distant in a direct line 32 feet from the latrine discharge pipe. More vital is still is the fact that the latrine discharges above the water line whilst the suction to the galley pump is taken from the bottom of the ship. It is a matter of common observation (though unpleasant) from a ship deck that the discharge from a latrine invariably floats for at least a very material length of time on the surface of the water and is carried whither the current tide or wind bears it. This is true even in land locked harbours such as our Lake ports and can be verified by Dr. Van Semeren's own observations.

Further the excrement is at once discharged into practically a limitless mass of water and in consequence risks of infection are enormously reduced.

The Medical Officer is again in hopeless error in stating that there is no flushing arrangement in latrines for even a casual glance will show him a specially large sluicing valve fitted to each latrine.

I have already disproved the statement that the drinking water can by any possibility be drawn from the vicinity of the latrine discharge even should the Cook or his assistants fail to draw it from the fresh water tank.

The object of the two way cock connecting (a) with the fresh water and (b) with the lake is that actual cooking and boiling water for filters, tea etc. may come from the fresh water tanks and that the infinitely larger quantity of water required in securing pots and the other multifarious operation of the galley be drawn from the Lake direct.

W.
Assuming that a mistake were made and water required for tea or actual cooking was drawn from Lake does it not follow that in the process of boiling the germs are destroyed? I have always been told so and herein we have yet another most important save guard.

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(7) From the concluding sentence of the "Medical Officers" fourth paragraph it is stated that we as a Government Marine Dept. are tolerating sanitary arrangements which would not be allowed by a private shipping Company.

That statement I contradict absolutely for I personally knew that the greatest possible care was given to every detail in the design of the "Winifred" and "Sybil" by their designer and his staff the late Sir E.J. Read at one time Chief Constructor to the British Admiralty.

Short of distilling the whole ships water supply which no thoughtful person, I take it would advocate - or drawing the water from another source than the Lake not much in my opinion can be done to improve it.

(8) Some years ago we had two or three cases of enteric on our Steamers whether due to the water or milk, on steamer or shore no one can say and from time to time cases of diarrhoea occur both amongst the staff and passengers but on shore we have an infinitely greater number of such cases.

It is generally admitted by officers, Doctors and most people I have talked to that chills are responsible for a great number of the minor ailments complained of.

(9) Generally I must say I consider the letter of the Medical Officer of Jinja one of the most unfair criticisms I have ever read and can only believe that it was written in ignorance.

I have etc. etc. etc.

(Sd.)

Supdtg. Engineer Marine.

S. E. M.

Please enable me to reply to this at once and also inform me exactly what has been done to improve water supply in "Winifred" and "Sybil".

Does the same hold good in "Clement Hill" and "Nyansa"? We must show the Medical authorities what we propose doing when the ships are being overhauled and get them to approve in writing of our suggestions in order to obviate these complaints in the future.

(Sd.) R. M. Reynolds.

Marine Superintendent.

24/1/14.

URGENT.

Encl. No. 2
5

No. 449/1/3.

U R G E N T.

P. M. O's Office,
Entebbe, Uganda.

364

14th. January 1914.

Sir,

I Have the honour to forward a copy of a letter pointing out the urgent necessity for sanitary reasons for a complete alteration for the arrangements for drinking water on the S.S. "Winifred".

2. In October last I inspected the sanitary arrangements of the "Winifred" with Professor Simpson and can testify that Dr. Van Semeren has not exaggerated the case in his letter.

3. I was informed that the nuisance referred to had been pointed out to the Railway Authorities by the Medical Officer of Health at Kisumu, and that Professor was submitting a report, so that I did not move in the matter at the time, but as 3 months have now elapsed without anything having been done, I take the opportunity of asking you to forward this correspondence to the General Manager of the Uganda Railway in order to impress upon him the urgent necessity for taking some steps to remedy the evil.

4. I consider that the drinking water supply of the S.S. "Winifred" (also of the S.S. "Bybill" which I understand have similar defects) should be put on a sanitary basis as soon as possible, as it is, in its present state not only a grave and constant danger to the health of the passengers and crew, but may very possibly result in an epidemic of Enteric Fever or other water borne disease being introduced into the Uganda Protectorate.

I have etc. etc. etc.

(Sd.) C.J. Baker.

M.S. Officer.

The Marine Superintendent,

Uganda Railway.

u.f.s. The P.M.O. ENTebbe.

The Principal Medical Officer.

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ENTEBE.

Sir,

In continuation of my letter 36/J/13 re cases of Ptemaine poisoning, I have the honour to state that by the courtesy of the Captain I made an examination of the water supply on the "Winifred" and the state existing there calls I consider, for a thorough examination of all the vessels.

I consider that the installation is faulty in the extreme, there appears to be only one pump which serves to fill the drinking water tanks and also to flush the decks and to fill the tanks which serve the sanitary closets. I need hardly point out how dangerous such an installation is, for at times when in port the water for flushing the decks comes from over the side of the Pier where the water is not above suspicion seeing that the closets are used in port and typhoid is not unknown in East Africa Protectorate.

Even supposing that the native in charge thought of flushing the hose before filling the drinking tanks the risk is considerable and you will re-call that some of the best officers had typhoid and others have often diarrhoea and that lately I have reported cases of ptemaine poisoning and I think Mengo Hospital have had some cases also. Further the drinking water tanks are below deck and can be cleaned out only when the ship is in dock once a year!!! Jelly could scarcely go further.

The second pump for obtaining drinking and other water is about 4 yards astern of a native latrine with no flushing arrangements, and there is no guarantee that the drinking water is not drawn from here, as there is nothing to prevent the native from turning the wrong cock and drawing in water into which another native has just discharged urine possibly contaminated with Gonorrhoeal discharge of faces with acobae or others germs. This would not be tolerated on any private ships.

Separate pumps should be fitted to the drinking tanks which should be in an accessible place for frequent cleaning. The sanitary tanks are accessible and on deck.

The matter is of such immense importance to passengers to this Protectorate, to say nothing as to the health of the officers and crews, that I think strong representations should be made to the General Manager to have these things attended to with all speed, as delay or neglect might well entail a disaster of the first magnitude. You will recollect that Enteric was once introduced to Jinja by the steamers as the Pier water was found contaminated.

I have etc. etc. etc.

Jinja, 8/2/14.

(Sd.) R. Van Bemerem. M.O.

M.S.O.

Suggest copy to Supdt. Marine marked urgent, with request to place the matter before the G. Manager.

(Sd.) A.D.P.H.

P.M.O. 13/1/14.

Encl. No. 2

Nairobi, 366

10th. Feby. 1914.

C.S.O. Attached Papers for your information, and action.

(Sd.) J.A.Magan.
for P.M.O.

Reference No. 23/145/2.

C.S.O's Office,
Nairobi, 10th. February 1914.

Sir,
Fresh Water supply for Lake Steamers.

I have the honour to acknowledge the receipt of your letter No. B/20/22 dated the 9th. February 1914 with enclosures. 184

2. Would you be good enough to supply me with the plans of the vessels in question?

I have etc. etc. etc.

(Sd.) W.J. Madford.
Chief Sanitation Officer.

Gen. General Manager,
U.Ny. Nairobi.

Nairobi, 12th. February 1914.

No. B/20/22
215.

To
The Chief Sanitation Officer,
Nairobi.

Sir,
Fresh Water supply for Lake Steamers.

I have the honour to acknowledge the receipt of your letter No. 23/145/2 of the 10th. instant and to enclose herewith a plan of the steamers "Winifred" and "Byell".

I have etc. etc. etc.

(Sd.) W. Swinnie.
for General Manager.
Uganda Railway.

Encl. No. 2

C.B.O's Office,
Nairobi, 13th. February 1914.

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Sir,

Fresh Water Supply in Lake Steamers.
Ref.your No.B/20/22/215 of 12/2/14.

I have the honour to request, with reference to
above, that plans shewing the water distribution on
the Lake vessels may be supplied.

I have etc. etc. etc.

(Sd.) W.J.Radford.

Chief Sanitation. Officer.

The Hon.General Manager,
Ug.Ny. NAIROBI.

No.B/20/22/261.

General Manager's Office,
Nairobi, 21st. February 1914.

To

The Chief Sanitation Officer,
Nairobi.

Sir,

Plan of Water Service on Board Lake Steamers

With reference to your letter No.23/145/4 of
the 13th. instant, I have the honour to enclose here-
with a plan shewing the water distribution on the
ships, as desired.

I have etc. etc. etc.

(Sd.) H. B. Taylor.

General Manager,
Uganda Railway.

P. M. O's Office,
Entebbe, Uganda.
24th. December, 1914.

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Sir,

I have the honour to draw your attention to the increasing frequency of the occurrence of attacks of ptomaine poisoning or diarrhoea, and latterly also of enteric fever, among passengers and others on the lake steamers. The situation resulting is giving considerable anxiety not only to the Government and the Medical Department of this Protectorate but to the general public.

2. I append a list of 27 cases which have been reported to the Medical Sanitary Officer from Entebbe, Kampala and Jinja as having occurred during the last 6 months, no less than 23, including 4 cases of enteric fever and 2 suspected cases, having occurred during the last 3 months. The list is not a complete one, as many other cases of diarrhoea are known to have occurred but cannot be traced. Dr. Cook, of Mengo Hospital, states that he has treated as outpatients many cases of severe diarrhoea from the Lake Steamers of which no accurate records have been kept.

3. The vessel at present implicated appears from the enclosed list to be the S.S. Clement Hill, but cases have been treated also from other ships, especially the Winifred. A native sailor from the Winifred is now under treatment at Entebbe for enteric fever. He was admitted on November 25th.

THE PRINCIPAL MEDICAL OFFICER,

NAIROBI.

4. The Medical Sanitary Officer reports as follows:-

368A

"The illness in every case affects the bowel, and in many cases appears to be due to ptomaine or other poisoning. The chief symptoms in the majority of the cases are severe diarrhoea, with or without vomiting, with an occasional initial temperature, and frequently marked collapse and subsequent weakness."

5. He also reports that, in the case of enteritis the disease has commenced either on board or within one day of landing, and that two ships' officers, one of the Clement Hill and the other of the Winifred, have been attacked. In the case of enteric the disease has commenced from 12 to 14 days after landing.

6. He further reports as follows:-

"Amongst the 27 cases of illness reported, are four certain cases of enteric fever, and there are one or two other doubtful cases of this disease. It should be noted that these four cases all travelled together on the Clement Hill from Kisumu and arrived at Entebbe on October 21st. and that they were all returning from leave to England. Mr. Watson, District Commissioner, travelled again on the Clement Hill from Entebbe to Jinja on November 22th. This may possibly have been a relapse, as he informed me that he had never properly recovered from his attack of enteritis at Entebbe on 22nd. October, 1914. On the Clement Hill which arrived at Entebbe on the 21st. October, 1914, no fewer than eleven cases of illness are reported, including these four cases of Enteric.

In a few cases food is definitely suspected, but the fact that certain people drank no water whilst on board does not preclude the possibility

of the water being the offending agent.

through dishes, etc. being washed with same, diluting of condensed milk or use of water for toilet purposes. Mr. Haddon, District Commissioner Kampala, had breakfast on board with Mr. Bruton and was taken ill the same day. He suggests copper poisoning."

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7. There has been no undue prevalence of enteritis in Uganda apart from the cases connected with the ships. There has been no enteric this year, apart from the cases from the ships, except 4 cases from the Eastern Province, all in the last 3 months.

8. The only outbreak of enteric in Uganda was one numbering 49 cases which occurred in Jinja in 1911 when the original infection was traced to the ships. Apart from this there have ^{been a few isolated cases in the past and these} either been taken off the ships or have occurred in ports. In the 4 cases from the Eastern Province infection was apparently contracted in connection with the Busoga Marine system, which seems to have become infected quite recently. They include two Medical Officers, a Railway Inspector of Works and an employee of the R.S.A. Corporation. There is also a suspected case in an Indian now at Jinja which seems to have been infected at Bugando.

9. There appears to be no possible doubt that under existing conditions passengers run considerable risks of infection on the Lake Steamers. So far as enteric fever is concerned, no doubt some risk is also run between Mombasa and Kisumu, but everything seems to point to the ships as the chief source of infection and the chief danger of the spread of infection in Uganda appears to be in the steamer traffic. The history of the cases which have occurred in the Eastern Province confirms this.

10. The Medical Sanitary Officer reports that the arrangements for the supply of drinking water are very defective on all the Lake Steamers, with the possible exception of the Nyansa, and that cases of illness are reported now on practically every voyage of the Clement Hill. In this connection I would refer you to Professor Simpson's printed Report, Section (157). A copy of a letter from the Medical Sanitary Officer, Uganda to the Chief Sanitation Officer Nairobi, is enclosed for your information.

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11. I trust that you will agree with me in thinking that the above-mentioned facts call for an immediate and thorough investigation of the conditions on the Lake Steamers as regards the supply of water for drinking, kitchen and pantry use, bath and toilet and also as regards the arrangements for the storage and preparation of food.

I have the honour to be,

Sir,

Your obedient servant,

(Sd.) A.D.P.Hodges.

Principal Medical Officer.

Diarrhoea. Stayed in Entebbe one week.

Encl. N^o 3

No.	Name	Rank/Title	Arrival	Departure	Medical Notes
3	St. C. Grant	Supt. Busega Ry.	arr. Jinja from Kisumu 18/11	17-11-14	Diarrhoea. Stayed in Entebbe one week.
4	Mr. W. Clark	Chief Officer	arr. Jinja 10/12	9-12-14	Enteric
5	Watson	D.C.	arr. Jinja from NTB 14/11	27-11-14	Piomaine poisoning
6	do.	do.	arr. NTB 21/10	20-10-14	do.
7	Reddaway	Foreman, P. D.	do.	do.	Enteric
8	Dr. Feyler	M.O.	do.	do.	do.
9	Capt. Greenwood	Quartermaster	do.	do.	do.
10	Mr. Owen	Ast. Gvt. Printer	do.	7-11-14	Enteric Fever
11	Mrs. Greenwood	Wife of Qr. Master	do.	22-10-14	Accute Gastro Enteritis
12	Rev. Archdeacon Baskerville	C. M. S.	do.	20-11-14	Accute Diarrhoea. Kampala to Entebbe via Bukakata.
13	Mr. Wayne	Planter	do.	18-11-14	Ptomaine Poisoning. Attacked whilst on board. From England and Kisumu via Jinja.
14	Mrs. Wayne	--	do.	19-11-14	do.
15	Bishop Streicher	White Pethers	do.	7 or 8-1-14	3 days on board. From Eng. & Kisumu.
16	Mr. Kane	Wireless Operator.	do.	14-1-14	From East Africa. Spent 3 days on board.

No.	Name	Rank	Died on	Date of Voyage	Date of commencement of illness	Duration of illness	Nature of illness
14	Lawson Walston	Barrister	Clement Hill	Arr. Kln. 20/8/14	day after landing	Ill for 6 weeks.	Enteritis.
15	Mr. Swanson	Manager, Starb. Bank	Do.	" 28-9-14	29-9-14	Ill for 1 month.	do.
19	Mr. Bryton	A.D.C.	do.	do.	do.	Landed from steamer on 29 Ill for 6 weeks. From Eng- land & Mild Enteric. In Hosp. Mtb. 29/10-10/11.	do.
20	"Bedden	D. C.	do.	do.	do.	Had breakfast on board with Mr. Bryton on 29th. Ill for 14 days afterwards. Suggests copper poisoning	do.
21	"Harper	Dist. Agric. Officer.	do.	Arr. Kln. 21/11	21-11-14	From England. Mrs. Harper on same boat not attacked Only difference in food was that Mrs. Harper took no porridge.	Acute gas- tre Enteri- tis.
22.	"Stewart	---	do.	do.	do.	-----	Diarrhoea
23	Mrs. Millstone	C.N.S.	do.	" 20/10	Abt. 2 weeks later.	From Kasu: & Eng. Landed at JJA.	Enteric
24	Mr. Clark	Sec. to His- roy Uganda.	do.	do.	21-10-14	do.	Severe Diarrhoea.
25	Miss Gem	Housekeeper, S. N. S. Hosp.	do.	do.	do.	do.	do.
26	"Palgrim	C.N.S.	do.	Arr. Kln. 12/11	13-11-14	From Kasu. and England.	do.
27	S. R. Greens	Missionary - C.M.S.	do.	do.	do.	Kampala to Jinja. do. Ill many days Mild Enteric.	do.

Encl. No 3

J.449/1/G.

P. M. O's Office,
Entebbe, Uganda,

25th. November 1914.

Sir,

In ^{connection} continuation with my wire No.448 of the 24th.

instant, I would call your attention to paragraph 157 of Professor Simpson's Report relating to the water supply on the Lake Steamers.

2. The Medical Sanitary Officer, Uganda, as a result of a report by the Medical Officer, Jinja, wrote to the Marine Superintendent, Kisumu, in January last, drawing his attention to the defective arrangements for the supply of drinking water on the S.S.Vinifred, and pointing out the urgent necessity, on sanitary grounds, for a complete alteration of the existing installation.

3. The matter was then referred to the Honourable the General Manager of the Uganda Railway, who in a letter No.B/20/22 ¹⁹¹⁴ to the Principal Medical Officer Uganda dated February 10th. 1914 stated that he had asked the Principal Medical Officer to inspect the vessels, and that he would write again as soon as the report of the Medical Department has been received.

4. Will you please inform me whether this Report has yet been made, and if so, what steps, if any, have been undertaken to remedy the existing evils?

5. I would point out that the matter is a most urgent one, as recently on every voyage of the Clement Hill a number of the passengers have been taken ill, sometimes on board, sometimes a day or so after landing with

THE CHIEF SANITATION OFFICER,

P.M.O. ENTebbe.

with symptoms of ptomaine poisoning or severe diarrhoea, and there are now in Hospital here, suffering from Enteric, two Europeans (one has since died) just returned from leave who arrived here by the Clement Hill on October 21st., and who, I am of opinion from the dates given, must have contracted the infection either on the Clement Hill or on their journey through East Africa.

6. A list is now being prepared of all recent attacks of illness apparently traceable to the lake steamers.

7. You will probably remember that the Clement Hill as long ago as 1911 was suspected of introducing Enteric Fever into Jinja, and that about this time there were at least four cases of Enteric Fever amongst the Officers on this ship, one of these ending fatally at Entebbe Hospital.

8. I understand that the separate installation for drinking water on this ship was put in as a result of the enquiries instituted at that time, but from an inspection of the ship which I made a few days ago, I am able to state that the conditions are still far from satisfactory. The two drinking water tanks are placed in the hold, instead of on the fiddley where they could be easily got at for cleansing purposes. Again the water for the European Galley, pantry, etc. is not drawn from these tanks as it should be, but from the tanks so used for flushing decks etc., and I was informed that the boys frequently filled the water bottles in the cabins from the fire buckets, instead of from the drinking water pump.

9. I think you will gather from what I have said that this matter is a most serious one, and requires immediate attention.

I have etc. etc.

(Sd.) J. M. COLLINS.

P. M. O's Office,
Entebbe, Uganda.

8th. January, 1915.

Sir,

In continuation of my letter No. 449/1/16 of the 28th. December 1914, I have the honour to inform you that case No. 15 in the list attached which was at first one of ptomaine poisoning, developed enteric fever about 14 days after landing.

I have the honour to be,

Sir,

Your obedient servant,

(Sd.) A. D. P. Hodges.

Principal Medical Officer.
Uganda Protectorate.

PRINCIPAL MEDICAL OFFICER,
EAST AFRICA PROTECTORATE

Nairobi.

P. S. O.

This is a terribly serious state of matters and must be taken up energetically. The water supply of these ships would appear to be very defective, and the arrangements for the intake and use of the water when on board very defective though an effort has been apparently made to improve it.

I would suggest a memorandum on the subject with recommendations for (a) temporarily and (b) permanently improving conditions. For the latter I consider that in the default of a wholesome shore water supply, condensing apparatus should be fitted.

S A. B. Milne

P. M. O.

4-3-16.

No 23/145

March 4/6th, 1918.

**Reported outbreak of Enteric, Dysentery,
and Enteritis on Lake Steamers.**

MEMORANDUM.

In reply to your minute dated 3rd March 1918,
the facts as far as I have been able to ascertain
are as follows:-

Cases of illness among passengers and crews
on the Lake steamers have been reported for some
years by

- a. The Uganda Medical authorities.
 - b. Health Office, Kisumu, E.A.P.
- Reported by Medical Officer, Kisumu,
No. 57/3, 6-12-11.

A. October 1911. S.S. Clement Hill

- Enteric 2. Engineers.
- "S.S. Winifred " 1 2nd Officer.
- "S.S. Nyansa " 1 Engineer.

B. Reported By Principal Medical Officer, Uganda,
No. 286/11, 10-1-12.

Jinja 1911 Enteric 1.
In June 1911. Several cases including 1
European.

The Principal Medical Officer,
Nairobi.

IN

In September 1911 Enteric 2.

" November 1911 " 1

Traced to infection from S.S. Clement Hill.

Also at Entebbe Enteric 2.

Kampala " 1

"In my opinion suspicion is attached chiefly to
"Port Florence and S.S. Clement Hill".

6. P.M.O. Uganda to P.M.O., E.A.P. No.449/1/16,
24-12-14. Encloses list of 37 cases that have
occurred among those on board on travelling on
Lake steamers and chiefly the "Clement Hill".

2. Further reports dealing with infection on
Lake Steamers.

a. Medical Officer, Kisumu, No.353 dated
26-12-11, reports.-

"Sickness reported at German and Uganda
"Ports and persons are allowed on board
"without medical examination."

b. This statement is contradicted by P.M.O.
Uganda vide No.388/11 dated 10th January
1912.

c. Professor Simpson's report. August 1914.
Received November 1914, para 157 states
that the water supply is liable to con-
tamination by the distribution and sub-
stitution of water from sanitary tanks for
drinking water.

3. Enquiries were held, on various occasions, and
certain matters adjusted.

a. Medical Officer, Kisumu, No.135 dated

April

-----List-----

April 1910.

Recommendations made re mosquito breeding in bilge water, cleansing of steamers, and disposal of refuse.

Generally given effect to vide ¹⁹⁸⁴ 181
Manager, Uganda Railway, dated May 1910.

b. Medical Officer, Kisumu, No. 353, 26-12-11, reports after enquiring that

1. Water tanks were filled in the middle of the Lake.

2. Meat obtained from Kisumu Bazaar.

Vegetables " " Luswa.

Milk " " Local Natives.

Canned food" " Nairobi Railway Stores.

c. P.M.O. Uganda No. 388/11 dated 10th January 1912 Reports.-

"The Medical Officer throws some suspicion on the water near the pier, which he thinks may have been infected by cases on board the S.S. "Clement Hill".

d. Medical Officer, Kisumu, No. 12/1, dated 11th March 1912. Reports.-

Steps are being taken to demolish the insanitary butchers' shop at Kisumu, and the erection, on sanitary lines, of a new one.

"There is a possibility of infection having occurred from the ice chests on the ships. Fish which may have been caught in dirty water is often placed

"on the ice directly, i.e. not wrapped
 "in a cloth or placed in a dish. Meat
 "is also put in the same chest. I myself
 "have seen fish and butter in the same
 "chest carelessly thrown among the ice
 "block. Steps have been taken to prevent
 "this."

4. Medical Officer of Health, Kisumu, BI
 October 1913, reports.-

Water supplying sanitary tanks is obtained
 from the Lake while at Kisumu.

S.S. "Clement Hill".

Sanitary tank supplies Stewards pantry,
 bath and lavatories.

S.S. "Nyansa".

Sanitary tank is filled while vessel is
 alongside wharf at Kisumu, the crew use the
 water from this tank, at the time the ship's
 latrines are in use.

S.S. "Vinifred".

Sanitary tank supplies the stewards pan-
 try. Drinking water tanks are filled with the
 same hose as that used for washing decks.

Same pump used for sanitary tank and
 drinking water.

It appears that some alterations were
 instituted in January-March 1914 affecting
 the distribution of the water supply.

- f. Medical Sanitary Officer, Uganda,
 449/1/16 dated November 1913 reports.-

S.S. "Clement Hill".

Two drinking water tanks are placed in

the hold, and not on the fiddley; and that water from the European galley and pantry is drawn from the flushing tanks.

4. Until such time as a potable water supply of approved quality can be obtained from Kisumu the following precautions should be adopted:-

A. Drinking water, and that used ^{both} ~~for~~ in the preparation and cooking of food, washing of utensils used for the cooking and service of food, should be derived from a source absolutely separate and distinct from that required for sanitary and cleansing purposes. This can be secured if the detailed precautions are adopted:-

1. All drinking water to be obtained from the middle of the Lake (i.e. blue water) and stored in tanks separate and distinct from the sanitary tanks.
2. The intake pipes and pumps in connection with this to be a separate installation in every particular to that used for supplying water for other purposes.
The intake to be placed in the forward part of the ship at some distance from the outlet of the latrine.
3. Storage of drinking water to be in tanks placed on the fiddley, and not in the hold, to obviate the difficulty of access, and facilitate inspection and cleansing, and easy of distribution by a gravitation supply.
4. The distribution of this supply to be cut off entirely from all others to prevent

the

the possibility of indiscriminate use of any other supply. It follows that this water should be laid on to the steward's pantry, European galley, and drinking water tanks for crew.

The above 1-4 necessitate, I understand, structural alterations in the steamers.

If the above are found impracticable, then the complete sterilization by boiling or condensing of all water used for these purposes must be a *sine qua non*.

This would necessitate the installation of

- a. Condensing apparatus on all steamers of such dimensions that an adequate supply for these purposes is constantly maintained, viz.- 10 gallons per person per diem; and storage tanks.
- b. Boilers, and storage tanks of such capacity adequate to the above requirements.
- B. The crew must not be permitted to drink or cook their food in, or wash their utensils in, any water other than that derived from the "drinking water supply".
- C. All ice chests to be emptied, and cleaned at the termination of each voyage.
- D. Every part of the vessel to be fumigated and cleaned at such times and in such a manner as the Health Officer determines.
- E. All fresh food should be obtained from approved sources.
- F. Fresh milk should be boiled before issue.

William Hasford

PRINCIPAL SANITATION OFFICER.

Since this was written the attached additional minute by the D.D.M.S. on the action he recommends should be taken on the Uganda Railway steamers commandeered by the Naval authorities has been received.

This I propose to discuss in conjunction with Professor Simpson's Report at the meeting at Kisumu.

S^d A. D. Milne

Principal Medical Officer.

382A

P. M. O.

The G.O.C. agrees with me that this file be passed to you for your action as laid down in my recommendation marked "R" and this should be undertaken by the Railway authorities. If this does not check the incidence of disease we must start to installing the tanks on the vessels themselves.

G.J.
(Inld.) (G. Johnson.)

PRECIS.G. O. C.

This file points firstly to a heated and finally to a temperate controversy regarding the Drinking Water supply for the Lake Steamers, and the S.S. Clement Hill appears to be the one vessel selected as the one most frequently productive of infectious bowel complaints.

The recommendations given by the Sanitary Commissioner B.E.A. (Flag "B") appear to me to be very sound in principle which mainly consists of installation of Bailed drinking water tanks and these to be installed mainly in the Fore part of vessels. The tanks to hold a capacity sufficient for 10 gallons per head per average human freight.

Against this recommendation it has been brought to notice that when the ships are in Port no sterilization can be done for 3 or 4 days when the tanks will ~~run~~ run dry. As regards this objection I would also point out the same must hold good against using plain "blue water" drawn from centre of Lake (See Flag "A").

It is very evident to me that probably this is the main cause of contamination in the vessels, viz. that the "blue water" tanks have run dry in Port or running low and this water is supplemented from water over the side of the vessel.

So the question arises how are we going to meet this condition.

The only solution to this difficulty is to attach a sterilising plant to the Boiler that works the Crane on the Pier Head, by installing large Storage tanks in the Pier Head ~~xxxxxxxxxxxxxxxx~~ to hold 10,000 gallons, one of the tanks to have pipes of Steam leading from the Crane Boiler into it and another pipe leading from this first tank into the Cold Storage tank from which the Drinking water may be drawn and ships tanks filled while in Port.

Further, on the ships themselves the Sanitary Tank and its pipes must be absolutely separate from the Drinking water tank and its pipes, and the only hand taps and hand pumps allowed on the vessel are to be connected with the ~~drinking water tanks~~ drinking water tanks which pipes should lead to all pantries and Galleys and drinking stand pipes.

The other pipes that are required for Sanitary purposes and flushing Decks to have automatic valves, may be made practicable by using a Key.

By the above means alone (i.e. the installation of the sterilising plant on the Pier Head) risk of contamination is much diminished if it can be ensured that the vessels will only draw "Blue Water" from the centre of the Lake for their drinking water Tanks. But to complete the absolute sanitary equation all the vessels ought to have water tanks also installed in each of them. If this was done the incidence of disease would be practically abolished, so far as being caused by a voyage in the Lake Steamers.

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The other pipes that are required for Sanitary purposes and flushing Decks to have automatic valves, only made practicable by using a Key.

By the above means alone (i.e. the installation of the sterilising plant on the Pier Head) risk of contamination is much diminished if it can be ensured that the vessels will only draw "Blue Water" from the centre of the Lake for their drinking water Tanks. But to complete the absolute sanitary equation all the vessels ought to have water tanks also installed in each of them. If this was done the incidence of disease would be practically abolished, so far as being caused by a voyage in the Lake Steamers.

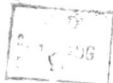
Before leaving the subject of contamination on the vessels, I would like to refer to the position of the Ice Chest on S.S. Clement Hill. It is alongside of the European Latrine and if cleaned in part from water over the side (which of course is the handiest) this water is sure to be contaminated. It would be advisable to find some other abode for the Ice Chest.

(84.) C. Johnson.
Lt. Col.

Jan. 25 295/1915

E.A.P.

385



Ind

SV

18 August 1915-

DRAFT

E.A.P.

No. 607

For Mr. H. Belfield

MINUTE.

Mr. Harper 16/8/15

Mr. Bottomley 6.8.15

Mr.

Mr.

Mr. G. P. Tucker

Mr. H. Frost

Mr. J. Anderson.

Mr. H. H. H. H.

Mr. H. H. H. H.

See 459 R4

With reference to ~~your~~
para 2 of your
despatch No. 343 of the
28 of April I have the
honour to ~~inform you that~~
enquire whether you
are now in a
position to furnish
the further report
relating to the spread
of Typhoid fever
on the Lake Steamers
in Uganda

W. A. BRIDGES, LAWYER