Public Works (1895) Department.

RAILWAY BRANCH.

G.O., No. 590R

DATED 20th September

[Despatch Abstract.]

Pilgrim Traffic.— Orders on reports from the Sanitary Commissioners on the inadequacy of arrangements to meet the sanitary requirements of pilgrims on the South Indian Railways.

Indexed.

[P. W. 66. 11-6-95]

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No. 590 R., 20TH SEPTEMBER 1895.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following papers:—

From the Acting Sanitary Commissioner for Madras, to the Chief Secretary to Government, dated Fort St. George, 3rd May 1895, No. 890 S.

On my journey to inspect the festival at Tiruvannámalai (*vide* this office letter No. 879 S., dated 1st May 1895), I was much impressed with the inadequacy of arrangements made by the railway authorities, to meet the sanitary requirements of the pilgrims. The trains were disgracefully overcrowded. This being the case as to the journey there, it seemed to me probable that on the return of the pilgrims the sanitary condition might well be worse. I have therefore collected from various officers reports as to facts observed. Extracts from these are embodied in the statement attached. They show clearly that, whilst it is true that in landing a passenger suffering from cholera, it did not necessarily result that a widespread epidemic took place in the locality, in several instances where local conditions favoured dissemination of the poison lamentable loss of life occurred. I need therefore hardly say I am most fully in accord with the Collector of South Arcot (Mr. Castlestuart Stuart) as to necessity for the creating of rulings that shall not leave such important matters in future to mere chance.

2. It is extremely improbable that persons suffering from cholera should be able to conceal the existence of the complaint from fellow passengers, in railway carriages. Nevertheless, it is shown (cases A, B, C) that persons were allowed to travel without segregation, under section 71, Indian Railways Act, 1890. It is therefore desirable that strict attention should be required from the railway authorities to this regulation in future.

3. It seems to me possible that bye-laws could be made under the section just quoted, which would ensure that pilgrims suffering from cholera shall not be dropped by the railway authorities, where they choose, but only on spots appointed before the occurrence of a festival in consultation with the authorities of districts through which pilgrim trains pass.

4. It also would seem reasonable that in trains carrying over, say, 100 *bond fide* pilgrims, there should be attached to each a special latrine carriage not latrine arrangements in separate carriages. To these latrine carriages all pilgrims should be required to proceed, instead of their using those on the platform of stations passed (*vide* case D). The special latrine carriage contents should invariably be carefully disinfected, and be disposed of as in the case of choleraic matter.

5. Again, a carriage reserved and fitted solely for ambulance purposes should be attached to each train carrying over 200 pilgrims, so that persons suffering from cholera could at once be segregated until arrival at the spot appointed by the District authorities, where medical attendance should be available.

6. In the district of occurrence of the festival, it might be possible to arrange that a medical subordinate should travel within the ambulance, by arranging a system of reliefs along the line.

7. Somewhat similar suggestions to the above were put in force lately in Russia during the prevalence of cholera.

8. In directing the attention of the District Sanitary officer, Vizagapatam (Surgeon-Lieutenant-Colonel Leapingwell), to the fact that certain pilgrims from an infected festival were about to pass into his district and advising observation, he suggested to me that a system of "passes" might be arranged for in communication with Railway and District authorities, and that the return of pilgrims by rail to their destination could always be notified to the District Sanitary officer. By using a code, it could be arranged cheaply to keep all authorities informed of the number of pilgrims and special localities to which they were returning.

ENCLOSURE.

EXTRACTS from reports showing spread of cholera by rail.

NELLORE DISTRICT.

By District Medical officer, Nellore.

Potlapudi Village.—"It appears that from Potlapudi, a village with a population of 871, situate about 12 miles south-east of Nellore, about 30 people went to the festival held at Tiruvannámalai. On arrival there they learned by tom-tom that cholera was present; they, however, did not leave till two days afterwards, and on the return journey in the train on the morning of the 14th December 1894, the first case occurred in a woman who died next morning, about one hour before the train arrived at Nellore, where her body was buried. Next morning as they were travelling to Potlapudi, a boy was attacked (since recovered), and same day a woman living in the same house as the boy was seized and died that night. The disease at first appeared only in the houses of those who had gone to the festival, but afterwards spread to the houses of other residents in the village. When it was found that cholera was present in their midst, many of the villagers went to their fields and stayed there till it had died out. . . . . He (hospital assistant) experienced great difficulty in dealing with the sick, as the relatives in most instances would not allow disinfection of stools, or their instant removal to a distance and buried as he advised, but threw them on the manure heap in the backyard usually, and only in some instances covered them with earth. . . . . The dead were buried within 12 hours, some in their clothes; but the clothes of others were removed by relatives and given to the dhobies to be washed; the relatives as well as the dhobies refused to use disinfectants in the water for washing them as recommended by the hospital assistant. They also refused to have their houses limewashed.

. . . . . .

"It seems to me to be of little use sending a hospital assistant to an affected village, unless he or some revenue official there be given some powers to enforce simple sanitary precautions against the spread of the disease, such as disinfection and burial of stools without delay, and early disinfection of clothing and houses of those attacked."

NORTH ARCOT DISTRICT.

By District Medical officer, North Arcot.

Vellore—" . . . Cholera was imported into the town by pilgrims on their way from the Tiruvannámalai festival, which took place about the 10th December. A number of people were seized with the illness on the journey and were sent on to Vellore in the train or from Kátpádi in jutkas by the railway apothecary or other railway official. The first case was that of a resident of Madras aged 20 years. He was brought in a cart from the South Indian Railway station to the hospital, on the 12th December, and died next day. The next case, also a resident of Madras, was attacked with the disease in the train and was taken into hospital on the 13th, and died the same evening. In like manner seven other cases were brought by train to the hospital, of whom six died in all.

. . . . . .

"A hospital assistant was deputed to visit all infected houses, and to see that thorough cleaning and disinfection were carried out under his own supervision, with directions to pay particular attention to infected clothing and to the discharges. . . . . "

SOUTH ARCOT DISTRICT.

By the Civil Apothecary, Chidambaram Municipality.

Chidambaram.—"The first case of cholera was that of a pilgrim, a Malayalee, who with his relatives alighted in a house in the eastern part of the town on the 14th instant, coming directly from Tiruvannámalai, whither he had been for the festival; he is reported to have taken bad the same night and died by the morning of the 15th. . . . . The other patient was found on the Railway Company's premises suffering from cholera, and he was sent on to the hospital on the forenoon of the 15th instant, where he died a few hours afterwards in spite of treatment. As he was in a greatly exhausted condition, a detailed account of his attack could not be obtained, but it is ascertained that he was also a pilgrim coming directly from Tiruvannámalai and was a native of Salem."

By the First-Class Hospital Assistant, Porto Novo.

"The man had been to Shiyali, where he was attacked at 6 P.M. on the 13th instant and brought down by his relatives to Porto Novo, his native place, on the same night by the mail train.

"I hear that cholera is prevailing at Shiyali, being imported by the pilgrims, who had been to Tiruvannámalai for Karthigai festival."

. . . . . .

By the Hospital Assistant, Vanur.

"In forwarding the enclosed cholera report, I beg to report that the first case occurred in one named Papooraya Mudali, who had been for the Karthigai festival at Tiruvannámalai where cholera prevailed."

. . . . . .

By First-Class Hospital Assistant, Cuddalore Old Town.

"I beg to report that three pilgrims, natives of Tinnevelly district (one female and two males), on their return from Tiruvannámalai festival last midnight were attacked with cholera, of whom the female died this morning in a choultry near the railway station."

. . . . . .

By Second-Class Hospital Assistant, Panruti.

"I beg to bring to your kind notice that cholera of virulent type was imported from Tiruvannámalai by the pilgrims who had been there for the late Karthigai festival; none of them were the residents of this place, but belonging to different parts of this district excepting one who was a native of Tanjore district. All of them that were attacked were Hindu males who actually brought cholera with them. Amongst the three who were attacked, two of them had been suffering from the complaint on their way home by the rail; since they were objected to proceed further to their destination, they alighted at the station, and halted at their friend's place and fell victims to the dire disease. . . . . "

CHINGLEPUT DISTRICT.

By the Civil Apothecary, Conjeeveram Municipality.

Conjeeveram.—". . . . On the 13th current, a Hindu male, weaver by profession, a resident of Conjeeveram, by name Kundasawmi Mudali, returned to his permanent residence at Pillapalium (Conjeevoram) from Tiruvannámalai by train. He went to attend the Karthigai festival that took place on the 10th idem. He stopped at Tiruvannámalai from Monday morning to Wednesday morning. He left the place as he was warned to leave it at once, as cholera was reported to have broken out in Mattupatty (cattle-market) . . . . About 7 miles from Conjeeveram when coming by the South Indian train on the 13th instant, he vomited. On arrival at Conjeeveram station he walked into the latrine on the platform, vomited and purged once therein, and then went on walking homewards. On the way, he entered Kamatchiamman temple, washed his hands and feet and rinsed his mouth in the tank of the temple and then walked away; approaching another temple Kachapeswaraswami's, he had another motion; still further on at the bend of Katchapeswaran Mada street he had one more motion. There was a fourth motion at the bend of Akkapparantan street. After this he appears to have been much exhausted, and fell down unable to walk near the Manjaneer channel. . . . . "

TANJORE DISTRICT.

By District Medical officer, Tanjore.

Shiyali.—"I have the honour to inform you that the Civil Apothecary at Shiyali reports that, on the morning of 12th December 1894, on arrival of the 9 A.M. train at the Shiyali station from Villapuram, a person named Kuppusawmy Iyer was found to be suffering from cholera.

"2. It appears that, on his way from Tiruvannámalai Karthigai festival, he took the train at Villupuram at 3-40 A.M., and shortly afterwards was attacked with cholera; he passed several motions in the carriage and vomited several times. According to the account furnished to me by the apothecary, he was allowed to proceed from several stations before Shiyali, although he was seen to be vomiting by some of the railway officials."

"*P.S.*—Since writing the above I have received a report from the Medical officer at Shiyali that three more cases of cholera were discovered in the train, all patients were returning from the Tiruvannámalai Karthigai festival. I intend proceeding to Shiyali myself at once."

By the Assistant Surgeon, Tanjore.

". . . The patient had been to the infected place (Tiruvannámalai). On the 14th December 1894 at 5 P.M., while she was travelling in the train from Chidambaram to Tanjore, the attack commenced with vomiting and purging. The stools and vomited matters were voided in rags and thrown out of the carriage."

B.

By the Chairman, Municipal Council, Mayavaram.

". . . . The deceased had been to Tiruvannámalai (the attacked locality) and was in contact with an affected person. . . . The deceased had the attack while in attendance on another person. But considering as ordinary diarrhœa left the place Shiyali (where the other person was dropped from the train as cholera-stricken) and was on his way to his native place Alangudy. The date and time of attack said to be early morning of 13th December 1894. The deceased had purging and vomiting.

"The stools while at Shiyali were voided in a tope, in his clothes while in train. How disposed of with the stools, &c., during transmission not known. He was picked up in the railway station, and sent to the hospital where he was attended to. . . . ."

C.

No. 781, Local and Municipal.

Transferred to the Public Works (Railway) Department.

FORT ST. GEORGE,
5th June 1895.

(Signed) C. G. TODHUNTER,
Ag. Assistant Secretary.

From the Officiating Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 11th July 1895, No. 628.

I have the honour to acknowledge the receipt of your letter No. 1945, dated 20th June, enclosing copy of a letter from the Acting Sanitary Commissioner for Madras reporting on the inadequacy of arrangements made to meet the sanitary requirements of the pilgrims attending the recent festival at Tiruvannámalai on the South Indian Railway.

2. In reply I desire to explain that the general aspects of this subject were fully considered at the last railway conference, and I enclose you a copy of a letter in which the expression of my views was submitted in compliance with the request from that body that the opinions of the managers of the several railways might be obtained.

3. I have also the pleasure to forward a copy of a letter from the Company's Medical Officer, whose opinion was invited on the several points raised by the acting Sanitary Commissioner.

ENCLOSURES.

From the Medical officer, Madras Railway, to the Officiating Agent and Manager, dated Rayapuram, 6th July 1895, No. 927.

Acting Sanitary Commissioner's report.

[Your No. 8620/5915 of 21st ultimo.]

I duly received your above quoted letter forwarding your office docket No. 8620 containing the Sanitary Commissioner's report on circumstances which came under his notice while inspecting the festival at Tiruvannámalai, with his suggestions for preventing cholera poison being carried into various districts by pilgrims returning from such gatherings. As you have invited my opinion on the Sanitary Commissioner's suggestions, I have carefully examined the latter and beg to submit a few comments thereon. If it is intended to make reflections on the South Indian Railway Company for overcrowding their pilgrim trains, I don't think it is reasonable. The natives resort to such feasts as the one under reference in large numbers and the resources of the companies are taxed to the very utmost, and so some overcrowding is quite inevitable.

2. I am not quite in agreement with paragraph 2 of the Sanitary Commissioner's letter. A person may be suffering from cholera with painless symptoms and not attract the notice of fellow passengers, and even if they did, the person's fellow passengers would most probably be friends or relations and would very likely keep silent about the circumstances in case the railway officials would remove the individual from the train and place him down at some station very far from his home. The pilgrims know that it is the practice of the railway officials to be especially active on the occasion of a feast in looking out for travellers with symptoms of illness and in removing them from the train.

The railway apothecaries at such times move freely about among the pilgrims, while the latter are waiting at stations and the ticket collectors and porters are always instructed to scan the faces of the pilgrims well in order that cases of sickness may be detected and sent to hospital. The pilgrims therefore combine to conceal cases and the difficulties of the railway officials in detecting them are far greater I fear than the Sanitary Commissioner thinks. The report by the District Medical Officer, Nellore, shows how little assistance the authorities may expect from natives in detecting cases of cholera and stamping out the disease.

When the South Indian Railway authorities detected a case of cholera among the pilgrims returning from Tiruvannámalai, they appear to have acted with promptitude as you will observe from the report made by the 2nd-class hospital assistant, Panruti, on page 7 of the extract of reports accompanying the Sanitary Commissioner's letter to Government. The railway officials refused to allow the cholera-stricken people to remain in the train after the disease had declared itself, and set them down where medical relief was available.

3. I don't see any evidence in the extract of reports that the railway authorities dropped pilgrims suffering from cholera at unsuitable places, as suggested in paragraph 3 of the Sanitary Commissioner's letter. Wherever the pilgrims were dropped, medical attendance appears to have always been available. I am in entire agreement with the Sanitary Commissioner that some understanding should exist between the authorities of districts and the Railway Companies as to the stations at which cholera cases should be removed from the train. The district authorities should erect cholera sheds near some of the larger stations along the line where medical subordinates are stationed. There are such sheds on this railway and when a case is removed from a train, the railway apothecary renders first aid, places the patient in the shed, sends an intimation to the Government medical subordinate and hands over the case to him when he arrives. These sheds need not be expensive structures, and although that is so, it is very difficult to get district authorities to put them up. This department has been trying for a long time without success to induce the district authorities at Jalarpet to erect a cholera shed near that station to replace one that was demolished several months ago.

4. The suggestion in paragraph 4 that a latrine carriage should be attached to pilgrim trains is not one that I would like to support. The habits of natives are such that it would be difficult to induce the healthy pilgrims to enter such carriages and the latter would certainly prove to be serious nuisances. The latrine accommodation on platforms should suit healthy pilgrims quite well, and if the latrines are cleaned out and thoroughly disinfected immediately after the departure of the pilgrim train, any danger that might follow the use of the platform latrines by the pilgrims would be removed.

5 and 6. An ambulance carriage attached to trains carrying over a certain number of pilgrims would be useful. In my No. 449 of 27th March last to your address, I offered some remarks on the desirableness of having such carriages attached to pilgrim trains. I adhere to what is stated in that letter in this connection, and would only like to add that the patients' stools should be thoroughly disinfected and removed at some station, and buried deeply in the ground at some distance from houses and wells. Perhaps I should also say that instead of a railway apothecary accompanying the train over his own length only, it might be better if a Government medical subordinate travelled in the ambulance carriage the whole journey, and so the

continuity of the patient's treatment would not be interrupted. There might not be time during a short stoppage for an apothecary to acquaint his successor with all the particulars of cases then under treatment, and I think it would be better if a Government medical subordinate treated the cases throughout.

I would only seek to add that I am sure railway companies do their best to prevent the spread of cholera and other infectious diseases through any agency of theirs. When it is considered that the incubative stage of cholera may be five or ten days or even twenty days and that persons who attend one of these feasts and never take ill themselves may bring the disease to their homes, it would be very unreasonable to blame railway companies for helping to carry the poison to these villages. Again persons may have cholera on them, and yet not be apparently ill, or only slightly ill, and in that way the task of railway officials in selecting dangerous cases is very difficult. I think a great deal could be done by district authorities at these feasts to prevent cholera breaking out. The pilgrims reach the feast after a fatiguing journey in many cases, and this predisposes them to cholera. It is therefore important that the pilgrims should have opportunities of buying good wholesome meals at these fairs, that good well water should be available for their use; and that no vendors of decayed fruit should be allowed to ply their calling among the pilgrims.

I beg to return herewith your office docket above referred to.

From the Officiating Agent and Manager, Madras Railway Company, to the Secretary, Railway Conference, Simla, dated Madras, 13th May 1895. No. 8537/4656.

I have the honour to acknowledge the receipt of your letter No. 024 of 8th February 1895, forwarding copy of letter No. 713 R.T. of 13th December 1894, from the Government of India with enclosures regarding the stoppage of trains at short intervals to enable passengers to obey the calls of nature.

2. In dealing with this subject attention is invited to the very different conditions under which pilgrim traffic is conducted on the Madras Railway, compared with those which exist on the Oudh and Rohilkund and other railways in Northern India. On the Madras Railway pilgrims reach their destination in 3 or 4 hours, and the existing latrine accommodation provided at stations is found to suffice; most of the trains conveying passengers halt at the principal intermediate stations for 15 minutes or more and mail trains stop at all large stations both in the morning and evening for about half an hour; drinking water is distributed on the platforms of nearly every station; and the present arrangements for coping with pilgrim traffic appear to afford satisfaction.

3. On the general question raised, and in regard to the difficulties encountered on other lines when the journey by train extends to over 24 hours, the Heads of Departments, to whom the subject was referred, concur with me that any system for utilizing the carriages for latrines does not commend itself. It does not suit the habits, customs and convenience of the bulk of native passengers, as they are, as a rule, ignorant of the proper method of using the type of latrine usually provided in carriages, and the difficulty in preserving cleanliness in the carriages is an insuperable objection. The pollution, moreover, of the road both within station limits and throughout the line, the consequent dissemination of disease, and the demand on the permanent-way gangs to undertake the duties of scavengers, are adduced as further reasons for condemning the system. These objections, however, do not affect the provision of latrines in one of the carriages in ordinary trains for the use of females and children recently adopted.

4. In the opinion of this office, the other alternative appears to be preferable in many ways, although it entails detention to the trains. I would therefore advocate that all trains conveying pilgrims should stop for at least 45 minutes at sunrise, and again at sunset, at specially selected temporary stations, to permit pilgrim passengers to perform their necessary ablutions and make use of the ordinary conveniences which should be provided. With this object the selected stations should be far from large towns and fixed at sites where open plains would afford space for the erection of the requisite sheds and latrines (for both sexes) which should be of a temporary character. The sites chosen should also contain an ample supply of good water, and a special temporary staff of scavengers should be retained for keeping the premises scrupulously clean and ready for the use of the following train load of passengers. On lines where large pilgrim traffic is annually dealt with, it will doubtless be practicable to time all trains carrying pilgrims so that they will arrive at these temporary halting stations at sunrise or sunset. The outlay and upkeep of these temporary latrine conveniences would be fully repaid by the resulting benefits to be derived. The outbreak of an epidemic would be restricted to the temporary halting stations; the risk of its importations into large towns would be minimised; the cleanliness of the line and stations would be secured; and the comfort and convenience to passengers would be fully appreciated.

5. In regard to sickness during the journey the company's medical officer suggests that in cases where pilgrims are attacked by cholera they should be removed to a hospital van (to be attached to the train) in which separate latrine accommodation for both sexes should be provided. The apothecary of the section could travel in the van, taking with him his medical chest, and would commit the charge of the patients to the apothecary of the next section, and the repetition of this procedure would secure for all who required it, the benefit of medical aid throughout the journey. I consider this proposal worthy of consideration.

6. With reference to the utilization of covered goods wagons to meet the requirements of abnormal traffic, there appears to be no reason why these should not be converted into temporary 3rd class carriages by the introduction of suitable ventilation, both at the ends and on the roof of these vehicles.

From the Acting Agent, South Indian Railway, to the Consulting Engineer for Railways, Madras, dated Trichinopoly, 30th August 1895, No. 797.

Referring to your endorsement No. 1946 of 20th June 1895, forwarding copy of the Acting Sanitary Commissioner's letter (Local and Municipal Department, No. 890, dated 3rd May 1895), to the Chief Secretary to Government of Madras, I have the honour to collate the following extracts from reports by the Superintending Physician and the Acting Traffic Manager of this Railway, on the subjects referred to in the Acting Sanitary Commissioner's letter.

The Superintending Physician writes the arrangements made by his department during the Tiruvannámalai festival of 1894 were as follows:—

"The apothecary of the section (located at Villupuram) visited Tiruvannámalai daily and stayed several hours, and inspected the station grounds, latrines, &c. Disinfectants were freely used about the grounds, and especially on spots where pilgrims sat about or washed, &c. All rubbish was swept twice daily and burnt in the incinerator. The waterman was stationed at the well to serve out water and prevent its pollution. Disinfectants were served out to the station staff for use when required and a supply of cholera medicines was left with the stationmaster. The apothecary during the festival month made special inspection of stations on his section and was absent from head-quarters for twenty-one days on this account. It is the general practice during festivals for the apothecary of the section, in whose length of line a festival occurs, to act as above specified. This is done at Kumbakónam, Tirupati, Chidambaram, &c."

"The transport of large numbers of semi-civilised and unruly pilgrims with horrid and insanitary ways is a difficult traffic question and so much of it as is related to medical management is certainly not, in my opinion, happily solved by the Acting Sanitary Commissioner in his letter to the Chief Secretary to Government, copy of which you send me with your above-quoted letter. The special latrine carriage proposed by the Acting Sanitary Commissioner has yet to be invented, and when used by large numbers of pilgrims is more likely to be a nuisance on wheels than a measure appertaining to sanitation, and to prevent *bond fide* pilgrims from using the station latrines would mean the stationing of two ticket examiners at the double latrines at stations (some of our stations have more than two latrines) to scrutinise the tickets of passengers, essaying towards the calls of nature. This would mean further a prohibitive waste of time at stations."

"The Acting Sanitary Commissioner appears to be under the impression that cholera-stricken passengers are allowed to travel together. This is a great mistake. No sooner does a passenger show any symptom of the disease than every other passenger in the carriage is removed to other parts of the train and the cholera-stricken passenger alone carried in the polluted carriage. The patient is *not* dropped by the railway authorities where they choose, but put down at the nearest large station where there is a hospital. The polluted carriage is then subjected to a process of disinfection. I pointed out a few years ago that no process of disinfection practicable for a carriage would satisfy theoretical requirements, still the carriage is well scrubbed and washed with an antiseptic fluid, and then fumigated (closed) with sulphur."

"It is my belief that in 99 per cent. of cases of cholera showing itself in passengers, the disease manifests itself only *after* the journey has commenced, the patient being free from the disease at the time of purchasing his ticket. For a person with the actual disease dominant on him to pass the ticket collector's gate, and walk or be carried up the platform of the station and put into a carriage, without being detected by the railway servants, or being objected to by other passengers, is well nigh an impossibility."

"I may here say, with reference to the Acting Sanitary Commissioner's proposal to have a reserved ambulance carriage, that the present practice obtaining on this railway of removing healthy passengers from a carriage contaminated by a cholera patient and allowing the patient to travel in it alone is preferable."

"But medical necessaries may be carried by the chief guard in his van at festival times."

"Similarly I do not see good reason for a medical subordinate to travel, as proposed by the Acting Sanitary Commissioner, in the district of occurrence of the festival. Such pilgrims as come away from an infected area (themselves being poisoned) usually manifest the disease only after a good distance is travelled—fifty miles and upwards, and if, as is proposed, the district authorities should inform the Railway authorities at what points along the line in the district cholera-stricken patients are likely to alight, the reason for travelling subordinates is still less evident."

"I do not think anything more can be done than is now done in the transport of large numbers of pilgrims. Perhaps for ethical reasons, if for nothing else, stricter orders may be issued as to prevention of overcrowding of trains. But all over the world occasions continually arise when it is necessary to carry a passenger *some how* and to crowd into a compartment nearly twice the number it is meant to carry. Mere overcrowding, however offensive to one's sense of comfort and decency, will not produce cholera."

The Traffic Manager writes:—

"The measures taken by this department for dealing with the sanitation of passengers going to, and returning from, Tiruvannámalai last December, have been explained in my reports to you, dated 22nd December 1894 and 13th February 1895, respectively."

"It will be seen therefrom that in every instance we followed the rules laid down as far as it lay in our power, and I fail to see anything in the observations of the Acting Sanitary Commissioner which go to prove neglect on the part of the railway authorities in respect of the cases brought to notice."

"As Mr. Birch was the traffic officer in charge at the time, I called upon him to offer what remarks he might be desirous of making upon the report of the Sanitary Commissioner, and I now beg to quote from his memorandum the following expression of his views:—

"'The bulk of the passengers who attend this festival and cattle fair come from adjacent places, a large majority being residents of places within 100 miles. I call attention to this as the Acting Sanitary Commissioner's remarks imply otherwise. A continuous stream of persons walk into, and away, from Tiruvannámalai during several days of the fair, many of them bringing or removing cattle. The unchecked spread of disease by these persons is not touched upon by the Sanitary Commissioner. The disease was certainly not conveyed there by our passengers, since its prevalence at a village, only seven miles distant, was officially notified by the District Magistrate before the festival commenced. . . . . '"

"'So far as could be known, no person suffering with choleraic symptoms was permitted to get into the trains, but it may reasonably be supposed that premonitary symptoms passed unnoticed in such large crowds.'"

"'No cases were detected either in trains or at stations until the festival was over and the rush to leave the place commenced.'"

"'The station staff, largely aided by auxiliaries, and under personal superintendence of the District officer, assisted by a contingent of the reserve police, moved day and night amongst the returning passengers, and several suspicious cases were removed from the premises to the local hospital.'"

"I may say that our duties in regard to passengers suffering from contagious or infectious disease are very simple. If any case is discovered in the train the carriage in which the person is travelling is cleared of other passengers and the patient is taken out at the nearest station where medical aid can be rendered. The vehicle is then detached and disinfected."

"I admit there is at times some difficulty in detecting these cases, especially if the sick person is accompanied by his family or friends who may be averse to the interference of the authorities, being wishful to take, if possible, the patient to his house."

"As a rule passengers alighting at their destination pass away immediately from the company's premises and we have nothing more to do with them. They then become subject to the care of the town or district authorities."

"I understand, however, that at the festival we are referring to the people had no regular camping grounds, and squatted, without sanitary provisions, in the open grounds about the town."

"That amongst a concourse of over 100,000 people with such conditions prevailing, it is not to be wondered at that sickness broke out."

"If the Acting Sanitary Commissioner would direct attention to the necessities of the people *during their stay at the festival*, much good would result. That is the time and place for adopting preventive measures."

"With regard to returning passengers, no doubt many of them have to wait some hours before they can be entrained. On three closing days of the festival we despatched no fewer than 25,000 people, which fact will convey some idea of the stress of work put upon the traffic staff."

"If the people themselves, when sickness has declared itself amongst them, would call attention to their cases, the evil might be better combated, but there is, as before stated, the desire to hide the fact in order to avoid detention and to get home."

"I come now to the suggestions put forward by the Acting Sanitary Commissioner, who in paragraph 4 of his report recommends the attachment of a latrine carriage to each train carrying over 100 pilgrims."

"I do not see the necessity for this."

"These passengers do not travel great distances on our line. I would venture the remark that the average time they are in the train is not more than six hours."

"An healthy person would be able to contain himself during this time and any one having sudden motions could use the latrines at station passed en route."

"The instances of cholera-affected persons in trains are, fortunately, few in our experience and the provisions now in force for dealing with them have so far proved satisfactory."

"What would be the result if a latrine carriage were provided.?"

"I will preface my answer to this question by stating that people generally attend these feasts in village or family groups five or ten or more together and the most intelligent person of the party transacts business, buys tickets, &c. If, therefore, one of the party required to go to the latrine carriage, which would be, I presume, in the rear of the train, he would, in all probability, have his friends accompanying him thither, fearing to lose one another. In such an event the confusion and the risk of accident would be great when handling a full train of many hundred persons."

"The station latrines are always available, and sanitary precautions adopted, particularly at times of festival traffic, as pointed out by the Superintending Physician, with whose remarks on this part of the subject I thoroughly agree."

"With regard to paragraph 5 of the Acting Sanitary Commissioner's report as to a carriage reserved and fitted solely for ambulance purpose being attached to each train carrying over 200 pilgrims, I also think this unnecessary. If we had this carriage and a latrine carriage, with an apothecary travelling in the former as suggested in paragraph 6 of the Acting Sanitary Commissioner's report, on each train carrying over 200 passengers (only required at festival times), we should have to increase our rolling-stock and medical staff. It seems to me the difficulty might be met in a simpler and less expensive manner by halting special trains carrying pilgrims at certain intervals or at principal stations for thirty minutes during which time the Company's apothecaries could carry on a cursory examination of the passengers and the passengers themselves be able to visit the latrines, or what would be better, some grounds near by, with trenches ready made, set apart for their use."

"It might also be considered advisable to have some bottles of cholera mixture available in the chief guard's van, which the guard could give out in prescribed doses when necessary; in the initial stage of a choleraic attack this might have some beneficial effect."

"In conclusion, I beg to assure you that the subject is one which will continue to receive my careful attention."

With reference to the foregoing I am of opinion that the procedure adopted by the Railway Company is in the right direction, and on the most practical lines possible, under the circumstances only a general supervision of such crowds as frequent the railway premises and trains at festival times can be attained, and to attempt anything more would involve not only so serious an interference with the travelling public as to result in their avoiding the railway, but would entail a very considerable increase in the Company's working expenses in the matter of rolling-stock and staff without adequate result.

I believe that a latrine carriage attached to a train would in many ways be more harmful than its absence, and an ambulance carriage would certainly scare many pilgrims into the most desperate straits before they would submit to being incarcerated in such a vehicle.

I think that during festivals more might be done, and with greater advantage on the lines on which the railway administration now works, if the Company's Superintending Physician and the Government Medical officers in charge of the respective districts traversed by the line of railway, put themselves beforehand in communication and conjointly agreed on the measures that could best be taken with the staff and materials at their command to combat the epidemics and the insanitary influences at work or expected.

ORDER—No. 590 R., dated 20th September 1895.

The Sanitary Commissioner, in the report above quoted, enters a strong protest on the pilgrim traffic of the South Indian Railway as regards overcrowding—failure to detect and treat pilgrims suffering from cholera—and suggests need of latrine carriages and ambulance carriages.

2. Regarding the first complaint, it appears to His Excellency the Governor in Council that the reports reveal the great insufficiency of the rolling-stock and he desires the attention of the railway administration be drawn to this. It also appears desirable that, pending the construction of more carriages, arrangements should be made to obtain by hire or otherwise third-class carriages from the Southern Mahratta Railway during times of much traffic.

3. Certain proposals are before the Government of India to allow the use of covered wooden wagons in emergencies, but this should not delay the provision of third-class carriages above alluded to.

4. That failure, to detect and segregate pilgrims suffering from cholera, has occurred does not appear to be borne out by the reports, but it seems desirable to make a trial of attaching one ambulance carriage or to reserve two compartments (one for each sex) on a pilgrim train and to provide the guard with the necessary remedies.

5. This system would supersede the present one of removing all the passengers from a carriage in which there is a detected patient and which system is tantamount to converting that carriage into an ambulance carriage, besides causing great inconvenience and discomfort to the healthy passengers.

6. As regards the supply of latrine carriages, the evidence goes to show that it is practically impossible, and that the best way to deal with the wants of passengers in pilgrim trains is to stop the train between stations at convenient places where trenches should be dug and screens erected and sweepers provided.

7. In view of the profit directly derived by the railway from this traffic, it appears to His Excellency the Governor in Council that except in cases of wealthy municipalities, it should devolve on the Railway Company to provide both the latrine accommodation above referred to as well as temporary cholera camps for the treatment of patients on removal from the train at places where no regular hospitals exist.

(True Extract.)

Under Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Sanitary Commissioner, Madras.
" Local and Municipal Department.

Ed. C. M. Brisson
Spare Copies

RAILWAY.

Govt. of {1895} Madras.

PUBLIC WORKS.

Dated September, 20th.

Recd. Encl.

G.O. No. 590 R., 20th Sept. 1895.

SEPTEMBER.

Pilgrim Traffic

Orders on report from the Sanitary Commissioner on the inadequacy of arrangements to meet the sanitary requirements of pilgrims on the South Indian Railway.

Extracts from Reports showing spread of Cholera by Rail.

By District Medical Officer. Nellore.

Nellore District. Pottapudi Village: "It appears that "from Pottapudi a village with a population "of 871 situate about 12 miles South East of "Nellore about 30 people went to the festival held at Tiruvannamalai. On arrival "there, they learned by tom-tom that "Cholera was present, they however did "not leave till 2 days afterwards, and on "the return journey in the train on "the morning of the 12th December 1894 the "first case occurred in a woman who "died next morning about one hour "before the train arrived at Nellore, "where her body was buried. Next morning, as they were travelling to Pottapudi "a boy was attacked (since recovered) "and same day a woman living in "the same house as the boy was seized "and died that night. The disease "at first appeared only in the houses "of those who had gone to the festival, "but afterwards spread to the houses "of other residents in the village. When "it was found that Cholera was present "in their midst, many of the villagers "went to their fields and stayed there "till it had died out. * * * * * *. He* experienced

*(Hospital Assistant)

"experienced great difficulty in dealing
"with the sick as the relatives in most
"instances would not allow disinfection
"of stools or their instant removal to a
"distance and burial as he advises, but
"think there are the means kept in
"the backyard usually and only in
"some instances covered. Then with
"earth. × × × × × × The dead were buried
"within 12 hours some in their clothes
"but the clothes of others were removed
"by relatives and given to the dhobies
"to be washed. The relatives as well as
"the dhobies refused to use disinfectants
"in the water for washing them as
"recommended by the Hospital Assistant
"they also refused to have their houses
"limewashed."

× × × × × × × × ×

"It seems to me to be of little use
"sending a Hospital Assistant to an affected
"village, unless he or some revenue
"official there be given some powers
"to enforce simple sanitary precautions
"against the spread of the disease, such
"as disinfection and burial of stools
"without delay and daily disinfection
"of clothing and houses of those attacked."

By District medical officer - North Arcot -

North Arcot Dist. Vellore. × × × "Cholera was imported
"into this town by pilgrims on their way
"from the Tiruvannamalai festival, which
"took place about the 10th December. A
"number of people were seized with
"the illness on the journey and were
"sent on to Vellore on the train or from
"Katpadi in Jutkas by the Railway
"Apothecary or other Railway official. The
"first case was that of a resident of
"Madras aged 20 years. He was brought
"in a cart from the South Indian Railway
"station to the Hospital on the 12th December
"and died next day. The next case
"also a resident of Madras was at
"tacked with the disease in the
"train and was taken into Hospital
"on the 13th, and died the same even-
"ing. In like manner seven other
"cases were brought by train to the
"Hospital of whom 6 died in all."

× × × × × × × × ×

"A Hospital Assistant was deputed
"to visit all infected houses, and to see
"that thorough cleaning and disinfection
"were carried out under his own
"supervision, with directions to pay
"particular attention to infected
"clothing and to the discharges × × ×"

By the Civil Apothecary – Chidambaram Municipality.

South Arcot District – Chidambaram. "The first
"case of Cholera was that of a pilgrim, a
"Malayalee, who with his relatives alighted
"in a house in the eastern part of the
"town on the 11th instant coming directly
"from Tiruvannamalai where he had been
"for the festival. he is reported to have
"taken bad the same night and died
"by the morning of the 15th. the
"other patient was found on the Railway
"Company's premises suffering from
"Cholera, and he was sent on to the
"Hospital on the forenoon of the 15th ins-
"tant where he died a few hours
"afterwards in spite of treatment. the
"he was in a greatly exhausted condition
"a detailed account of his attack could
"not be obtained, but it is ascertained that
"he was also a pilgrim coming directly
"from Tiruvannamalai and was a native
"of Salem."

By the 1st Class Hospital Assistant

Porto Novo. "The man had been to
"Shiyali, where he was attacked at
"6 P.M. on the 13. instant and brought
"down by his relatives to Porto Novo, his
"native place on the same night by the
"mail train."

"I hear that Cholera is prevailing
"at Shiyali being imported by the pilgrims
who

"who had been to Tiruvannamalai
"for Karthigai festival."

South Arcot Dist. By the Hospital Assistant – Vanur.

Vanur. "In forwarding the in-
"closed Cholera report I beg
"to report that the first case
"occurred in one married
"Pappiraja Reddiar who had
"been for the Karthigai festival
"at Tiruvannamalai where Cholera
"prevailed."

— do —

Cuddalore Old Town – By the Hospital Assistant.

"I beg to report that 3 pilgrims,
"natives of Tinnevelly District
"(2 female and two males) on
"their return from Tiruvannamalai
"festival last midnight were
"attacked with Cholera, of whom
"the female died this morning
"in a Choultry near the Railway
"station."

× × × ×

Patriotic By 2nd Class Hospital Assistant. South Arcot Dt.

I beg to bring to your kind notice that cholera of virulent type was imported from Tiruvannamalai by the pilgrims who had been there for the late Karthegai festival. Many of them were the residents of this place, but belonging to different parts of this district excepting one who was a native of Tanjore District. All of them that were attacked were Hindu males who actually brought cholera with them. Amongst the three who were attacked two of them on their way to this place suffering from the complaint on their way by the rail since they were objected to proceed further to their destination they alighted at the station and halted at their friend's place and fell victims to the dire disease. xxx.

By the Civil Apothecary-Conjeevaram Municipality

Chingleput District. Conjeevaram. xxxxx Dt. the

"13th current a Hindu male, resident "by profession, a resident of Conjeeveram "by name Ramdasswami Sundaram re- "turned to his permanent residence "at Pillapalaiam (Conjeeveram) from "Tiruvannamalai by train. He went "to attend the Karthegai festival that "took place on the 10th idem. He stopped "at Tiruvannamalai from Sunday "morning to Wednesday morning. He "left the place as he was warned "to leave it at once, as cholera was "reported to have broken out in Kotta- "palli (cattle market) xxxx. About "5 miles from Conjeeveram when coming "by the South Indian train on the "13th instant, he vomited. On arrival "at Conjeeveram station he walked "into the latrine on the platform, "vomited and purged once therein, "and then went on walking towards "us. On the way, he entered "Ramatchandraswamy Temple, washed "his hands and feet and rinsed "his mouth in the tank of the "temple and then walked away "approaching another temple in "Kachapeswaraswami's he had "another motion, still further on

D

at

"at the head of Ratchepoondan
"head Street he had an more motion.
"There was a fourth motion at the
"head of Akkaparandan Street. After
"this he appears to have been much
"exhausted and fell down unable
"to walk near the kanjanee
"Chairmen. * * * * * * *"

By District Medical Officer - Tanjore

Shiyali "I have the honor to in- Tanjore District
"form you that the Civil Apothecary
"at Shiyali reports that on the
"morning of 12th December 1894 on
"arrival of the 9 a.m. train at the
"Shiyali station from Villapuram
"a person named Kappusamy
"Iyer was found to be suffering
"from Cholera.
"2. It appears that in his way
"from Tiruvadimanalai Karthigai
"festival he took the train at Vila-
"puram at 3.40 a.m; and shortly
"afterwards was attacked with
"Cholera. he passed several motions
"in the carriage and vomited
"several times. According to the
"account furnished to me by the
"Apothecary he was allowed to
"proceed from several stations
before

A

"before Shiyali although he was seen
"to be vomiting by some of the Railway
"Officials. * * * *"

"P.S. Since writing the above I
"have received a report from the Medical
"Officer at Shiyali that 3 more cases
"of Cholera were discovered in the
"train, all patients were returning
"from the Tiruvadimanalai Karthigai
"Festival. I am proceeding to
"Shiyali myself at once."

By the Assistant Surgeon - Tanjore

Tanjore. "* * * * The patient
"had been to the infected place (Tiru-
"vadimanalai). On the 14th December
"1894 at 5 P.M. while she was travel-
"ling in the train from Chidambaram
"to Tanjore, the attack commenced
"with vomiting and purging. The
"stools and vomited matters were
"voided in rags, and thrown out of
"the carriage. * * * * *"

B

By the Chairman Municipal Council - Mayaveram

Tanjore District. Mayaveram. "* * * * The deceased
"had been to Tiruvadimanalai (the at-
"tacked locality) and was in contact
"with an affected person * * * The deceased
had

"deceased had the attack while
"in attendance on another person.
"But considering as ordinary diarrhoea
"left the place Shigali (where the
"other persons dropped from
"the train as Cholera stricken) and
"was on his way to his native
"place Alaiguidy. The date and time of
"attack said to be early morning
"of 13th December 1894. The deceased
"had purging and vomiting."

"The stools while at Shigali
"were voided in a tope - on his
"clothes while in train. How dis-
"posed of with the stools is during
"transmission not known. He was
"picked up in the Railway station,
"and sent to the Hospital where
"he was attended to. x x x x"

True Extracts

J W Mayo

Surgn. Lt Col.

Dy. Sanitary Commissr

P.W. Enc 1 44784

Enclot to No. 890/S of 3rd May 1895 from the Sanitary Commissioner for Madras.

OFFICE OF SANITARY COMMISSIONER,

No. 890/S

Fort St. George, 3d May 1895.

Local & Municipal Dept.

CURRENT No.

From

SURGEON LIEUT.-COL. W. G. KING, M.B., C.M., D.P.H.,

Ag. SANITARY COMMISSIONER FOR MADRAS,

To

THE Chief Secretary to Government,
Local and Municipal Deptt.

Enclosure. 1

SIR,

On my journey to inspect the Festival at Tiruvannamalai vide this office letter No. 879/S dated 1st May 1895, I was much impressed with the inadequacy of arrangements made by the Railway Authorities, to meet the sanitary requirements of the pilgrims. The trains were disgracefully overcrowded. This being the case as to the journey there, it seemed to me probable that on the return of the pilgrims the sanitary condition might well be worse. I have, therefore, collected from various Officers reports as to facts observed. Extracts from these are embodied in the Statement attached. They show

show clearly that, whilst it is true that in landing a passenger suffering from cholera it did not necessarily result that a widespread epidemic took place in the locality, in several instances where local conditions favoured dissemination of the poison lamentable loss of life occurred. I need, therefore, hardly say I am entirely in accord with the Collector of South Arcot (Mr. Castle Stuart Stuart) as to the necessity for the creating of rulings that shall not leave such unimportant matters in future to mere chance.

2. It is extremely improbable that persons suffering from cholera should be able to conceal the existence of the complaint from fellow passengers, in Railway Carriages. Nevertheless, it is shown (Cases I.B.C.) that persons were allowed to travel without segregation under Section 71 Indian Railways Act 1890. It is therefore desirable that strict attention should be required from the Railway Authorities to this

this Regulation in future.

3. It seems to me possible that bye-laws could be made under the Section just quoted which would ensure that pilgrims suffering from cholera shall not be dropped by the Railway Authorities where they choose, but only in spots appointed before the occurrence of a festival in consultation with the authorities of districts through which pilgrim trains pass.

4. It also would seem reasonable that in trains carrying over, say, 100 bonâ fide pilgrims, there should be attached to each special latrine carriage - not latrine arrangements in separate carriage. To these latrine carriages, all pilgrims should be required to proceed, instead of their using those on the platform of stations passed (vide case D.) The special latrine carriage contents should invariably be carefully disinfected, and be disposed of as in the case of Choleraic matter.

5. Again, a carriage reserved and fitted solely for ambulance purposes should be attached to each train carrying

carrying over 200 pilgrims; so that persons suffering from cholera could at once be segregated until arrival at the spot appointed by the District authorities, where medical attendance should be available.

6. In the district of occurrence of the festival, it might be possible to arrange that a medical subordinate should travel within the ambulance, by arranging a system of reliefs, along the line.

7. Somewhat similar suggestions to the above were put in force lately in Russia during the prevalence of Cholera.

8. In directing the attention of the District Sanitary Officer, Vizagapatam (Surgeon-Lt.-Col. Leaping well) to the fact that certain pilgrims from an infected festival were about to pass into his district and advising observation, he suggested to me that a system of "passes" might be arranged for in communication with Railway and District Authorities, and that the return of pilgrims by rail to their destination could always be notified to the District Sanitary Officer. By using a code, it could be

be arranged cheaply to keep all authorities informed of the number of pilgrims and special localities to which they were returning.

I have the honor to be

Sir

Your most obedient

servant

W. Wood

Surgn. Lieut. Col.

Sy. Sanitary Commissioner

Local & Municipal Dept

Local & Municipal Dept.
CURRENT No. 1222

From,
Surg: Lt. Col: W.G. King
M.B., C.M., D.P.H.
Ag Sanitary Commissioner
for Madras

To,
The Chief Secretary
to Government
Local & Municipal Dept.

Dated 3d
Despatched 4th } May 1895
Recd. 6 MAY. 95

No. 890/5

Encl. 1.

Subject.

Reporting the inadequacy of arrangements made by the Railway Authorities to meet the Sanitary requirements of the pilgrims during the Kurthigai festival at Tiruvannamalai

/with endorsement/

4478

Recd: 10-6-95

Encl: 1.

cs

No. 781

Transferred to the Public Works (Railway) department

7/6/95

C. Godhumber
25.5.95
Ag. Assistant Secretary

Fort St. George
5th June
May 1895

To

The Public Works (Railway)
department.

9/15 Encls

[1,000—97-8-96.]

No. 927.

From
The Madura Railway Company,
Medical officer's Office,
Rayapuram 6th July 1896.

To
The Offg. Agent and Manager
Madura Railway Company.

Dear Sir,

Ag Sanitary Commissioner's Report

Your No. 8620/5915 of 21st ultimo

I duly received your above quoted letter forwarding your office docket No. 8620 containing the Sanitary Commissioner's report on circumstances which came under his notice while inspecting the Festival at Tiruvannamalai with hints & suggestions for preventing Cholera from being carried into various districts by pilgrims returning from such gatherings. As you have invited my opinion on the Sanitary Commissioner's suggestions I have carefully examined the letter and beg to submit a few comments thereon.

2. If it is intended to make reflections on the South Indian Railway Company for overcrowding their pilgrim trains I don't think it is reasonable. The natives resort to such feasts as the one under reference in large numbers and the resources of the Companies are taxed to the very utmost and so some overcrowding is quite inevitable.

2. I am not quite in agreement with para 2 of the Sanitary Commissioner's letter. A person may be

be suffering from cholera with painless symptoms and not attract the notice of fellow passengers. and even if they did, the persons fellow passengers would most probably be friends or relations and would very likely keep silent about the circumstances, in case the Railway officials as would remove the individual from the train and place him down at some station very far from his home. The pilgrims know that it is the practice of the Railway officials to be especially active on the occasion of a threat in looking out for travellers with symptoms of illness and in removing them from the train.

The Railway Apothecaries at such times move freely about among the pilgrims while the latter are waiting at stations and the ticket Collectors and porters are always instructed to scan the faces of the pilgrims well in order that cases of sickness may be detected and sent to hospital. The pilgrims therefore combine to conceal cases and the diffientities of the Railway officials in detecting them are far greater I fear than the Sanitary Commissioner thinks. The report by the District Medical Officer Kellora shows how little assistance the authorities may expect from natives in detecting cases of Cholera and stamping out the disease

When the S. I. Railway authorities detected a case of Cholera among the pilgrims returning from Tirunamanallai they appear to have acted with promptitude as you will observe

absence from the report made by the 2nd class Hospital Assistant Pansuti on page 7 of the Extract of Reports accompanying the Sanitary Commissioner's letter to Government. The Railway officials refused to allow the cholera stricken people to remain in the train after the disease had declared itself and set them down where medical relief was available.

3. I don't see any evidence in the Extracts of Reports that the Railway authorities dropped pilgrims suffering from Cholera at unsuitable places as suggested in para 3 of the Sanitary Commissioner's letter. Wherever the pilgrims were dropped medical attendance appears to have always been available. I am in entire agreement with the Sanitary Commissioner that some understanding should exist between the authorities of Districts and the Railway companies as to the stations at which Cholera cases should be removed from the train. The District authorities should erect Cholera sheds near some of the larger stations along the line where medical subordinates are stationed. There are such sheds on this Railway and when a case is removed from a train the Railway Apothecary renders first aid, places the patient in the shed, sends an intimation to the Government Medical Subordinate and hands over the case to him when he arrives. These sheds need not be expensive structures and although that is so

so it is very difficult to get District authorities to put them up. This department has been trying for a long time without success to induce the District authorities at Jalalpet to erect a cholera shed near that station to replace one that was demolished several months ago.

11. The suggestion in para 4 that a Latrine Carriage should be attached to pilgrim trains is not one that I would be like to support. The habits of natives are such that it would be difficult to induce the healthy pilgrims to enter such carriages and the latter would certainly prove to be serious nuisances. The latrine accommodation on platforms should suit healthy pilgrims quite well and if the latrines are cleaned out & thoroughly disinfected immediately after the departure of the pilgrim train any danger that might follow the use of the platform latrines by the pilgrims would be removed.

(5 & 6) An ambulance carriage attached to trains carrying over a certain number of pilgrims would be useful. In my No 1149 of 27th March last to your address I offered some remarks on the desirableness of having such carriages attached to pilgrim trains. I adhere to what is stated in that letter in this connection, and would only like to add that the patients stools should be thoroughly disinfected and removed at some station, and buried deeply in the ground at some

?

some distance from houses and wells. Perhaps I should also say that instead of a Railway Apothecary accompanying the train over his own length only it might be better if a Government Medical Subordinate travelled in the ambulance carriage the whole journey, and so the continuity of the patients treatment would not be interrupted. There might not be time during a short stoppage for an Apothecary to acquaint his successor with all the particulars of cases then under treatment and I think it would be better if a Government Medical Subordinate treated the cases throughout.

I would only seek to add that I am sure Railway Companies do their best to prevent the spread of Cholera and other infectious diseases through any agency of theirs. When it is considered that the incubative stage of Cholera may be five or ten days or even 20 days and that persons who attend one of these feasts and never take ill themselves may bring the disease to their homes it would be very unreasonable to blame Railway Companies for helping to carry the poison to these villages. Again persons may have Cholera on them and yet not be apparently ill or only slightly ill and in that way the task of Railway officials in selecting dangerous cases is very difficult. I think a great deal could be done by District authorities at these feasts to prevent Cholera breaking out. The pilgrims reach the feast after a fatiguing

fatiguing journey in many cases and this predisposes them to Cholera. It is therefore important that the pilgrims should have opportunities of buying good wholesome meals at these fairs, that good well water should be available for their use and that no vendors of decayed fruit should be allowed to ply their calling among the pilgrims.

I beg to return herewith your office Docket above referred to.

Yours faithfully
Sd/ J. Currie
Medical Officer
Madras Railway

/True copy/
Henry C. Walsh
Offg. Agent & Manager.

ENC. No. 1 to D. O. No. 3252 295
LETTER No. 628 dt. 11-7-95
FROM A.M.

Madras Railway Company,
Agent and Managers Office,
Madras, 13th May 1895.

No 8537
11656

From

The Offg. Agent and Manager
Madras Railway Coy.

To

The Secretary,
Railway Conference,
Simla.

Sir,

I have the honour to acknowledge the receipt of your letter No. 0711, of 8th February 1895 forwarding copy of letter No. 713 R.J. of 13th December 1894 from the Government of India with enclosures regarding the stoppage of trains at short intervals to enable passengers to obey the calls of nature.

1. In dealing with this subject attention is invited to the very different conditions under which pilgrim traffic is conducted on the Madras Railway compared with those which exist on the Oudh and Rohilkund, and other Railways, in Northern India. On the Madras Railway pilgrims reach their destination in 3, or 4 hours, and the existing latrine accommodation provided at stations is found to suffice; most of the trains conveying passengers halt at the principal intermediate stations for 15 minutes

minutes or more, and mail trains stop at all large stations both in the morning and evening for about half an hour; drinking water is distributed on the platforms of nearly every station; and the present arrangements for coping with pilgrim traffic appear to afford satisfaction.

2. On the general question raised, and in regard to the difficulties encountered on other lines when the journey by train extends to over 24 hours, the Heads of Departments to whom the subject was referred concur with me that any system for utilizing the carriages for latrines does not commend itself. It does not suit the habits, customs and convenience of the bulk of native passengers, as they are, as a rule, ignorant of the proper method of using the type of latrine usually provided in carriages - and the difficulty in preserving cleanliness in the carriages is an insuperable objection. The pollution moreover, of the road, both within station limits and throughout the line, the consequent dissemination of disease, and the demand on the permanent way gangs to undertake the duties of scavengers, are addduced as further reasons for condemning

this

the system. These objections however, do not affect the provision of latrines in one of the Carriages in ordinary trains for the use of females and children recently adopted.

3. In the opinions of this office the other alternative appears to be preferable in many ways although it entails detention to the trains. I would therefore advocate that all trains conveying pilgrims should stop for at least 1/5 minutes at sunrise, and again at sunset, at specially selected temporary stations, to permit pilgrim passengers to perform their necessary ablutions and make use of the ordinary conveniences which should be provided. With this object the selected stations should be far from large towns and fixed at sites where open plains would afford space for the erection of the requisite sheds and latrines (for both sexes) which should be, of a temporary character. The sites chosen should also contain an ample supply of good water, and a special temporary staff of scavengers should be retained for keeping the premises as scrupulously clean and ready for the use

of

of the following Annum-load of passengers.
On lines where large pilgrim traffic is annually dealt with, it will doubtless be practicable to time all trains carrying pilgrims so that they will arrive at these temporary halting stations at sunrise or sunset. The outlay and upkeep of these temporary latrine conveniences would be fully repaid by the resulting benefits to be derived. The outbreak of new epidemic would be restricted to the temporary halting stations; the risk of its importations into large towns would be minimised; the cleanliness of the line and stations would be secured; and the comfort and convenience to passengers would be fully appreciated.

11. In regard to sickness during the journey the Company's Medical Officer suggests that in cases where pilgrims are attacked by cholera they should be removed to a hospital van (to be attached to the train) in which separate latrine accommodation for both sexes should be provided. The apothecary of the section could travel in the van, taking with him his medical chest, and would commit the charge of the patients

to

to the Apothecary of the next section, and the repetition of this procedure would secure for all who required it the benefit of medical aid throughout the journey. I consider this proposal worthy of consideration.

5 With reference to the utilization of Covered Goods wagons to meet the requirements of abnormal traffic, there appears to be no reason why these should not be converted into temporary 3ª class Carriages by the introduction of suitable ventilation both at the ends and on the roof of these vehicles.

I have &c

(Sd) Henry C. West.

Offg: Agent & Manager.

I True copy

Henry C West

Offg: Agent & Manager.

The Consulting Engineer
for Railways.

2 TO E. [illegible] C. No. 3052 of 95
LETTER No. 628 dt 11-7-95
A. M.

(No. I.)

No. 628

MADRAS RAILWAY. 10

AGENT AND MANAGER'S OFFICE,

Madras, 11th July 1895

Print

From

The Agent and Manager.

M.R.6

To

The Consulting Engineer for Railways

Sir,

await S.I.R. reply

12/7

I have the honour to acknowledge the receipt of your letter No 1945 dated 20 June, enclosing copy of a letter from the Acting Sanitary Commissioner for Madras reporting on the inadequacy of arrangements made to meet the sanitary requirements of the pilgrims attending the recent festival at Tiruvannamalai on the South Indian Railway.

2. In reply I desire

b/

to explain that the general aspect of this subject were fully considered at the last Railway Conference, and I enclose you a copy of a letter in which the expression of my views was submitted in compliance with the request from that body that the opinions of the Managers of the several Railways might be obtained.

8. I have also the pleasure to forward a copy of a letter from the Company's Medical Officer, whose opinion was invited on the several points raised by the acting Sanitary Commissioner.

I have the honor to be,
Sir
Your Most Obedt Servt

Henry Weeks.
Offg Agent & Manager

Branch

3032
187-95

MADRAS RAILWAY.

From

The Agent and Manager.

To

The Consulting Engineer
for Railways.

Dated 188

Recd.

No.

Letter to Am in No 25-74
9-8-95

No. 797 South Indian Railway Co., Ld.

AGENT'S OFFICE,

TRICHINOPOLY, 30th August 1895.

From

Ag:
THE AGENT,

SOUTH INDIAN RAILWAY,

To

THE CONSULTING ENGINEER
FOR RAILWAYS,
MADRAS.

Sir,

Referring to your endorsement No. 1946 of 20th June 1895, forwarding copy of the Acting Sanitary Commissioner's letter (Local and Municipal Department No. 890 dated 3d May 1895/5) to the Chief Secretary to Government of Madras, I have the honor to collate the following extracts from reports (acting) by the Superintending Physician and the Traffic Manager, of this Railway, on the subjects referred to in the Acting Sanitary Commissioner's letter.

The Superintending Physician writes the arrangements made by his Department during the Tiruvannamalai Festival of 1894 were as follows:—

"The Apothecary of the Section (located at Villupuram) visited Tiruvannamalai daily and stayed several hours, and inspected the Station grounds, latrines, &c. Disinfectants were freely used about the grounds, and especially on spots where pilgrims sat about or washed &c.

"All

travel

3760
2.9.95

From
THE AGENT,
SOUTH INDIAN RAILWAY,
Tiruchinopoly.

To
THE CONSULTING ENGINEER FOR
RAILWAYS,
Madras.

Dated
Received
No.
Enclosure.

"All rubbish was swept twice daily and burnt in the incinerator. The waterman was stationed at the well to serve out water and prevent its pollution. Disinfectants were served out to the Station Staff for use when required and a supply of Cholera medicines was left with the Station Master. The Apothecary during the festival month made special inspection of Stations on his Section and was absent from Head Quarters for 21 days on this account. It is the general practice during festivals for the Apothecary of the Section, in whose length of line a festival occurs, act as above specified. This is done at Kumbakonam, Tirupati, Chidambaram, &c."

The transport of large numbers of semi-civilised, and unruly, pilgrims with horrid and insanitary ways, is a difficult traffic question and so much of it as is related to Medical Management is certainly not, in my opinion happily solved by the Acting Sanitary Commissioner in his letter to the Chief Secretary to Government copy of which you send me with your above quoted letter. The Special Latrine Carriage proposed by the Acting Sanitary Commissioner has yet to be invented: and when used by large numbers of pilgrims is more likely to be a nuisance on wheels than a measure appertaining to Sanitation, and to prevent bona fide pilgrims from using the Station latrines would mean the stationing of two ticket Examiners at the double latrines at Stations (since of our Stations have more than two latrines) to Scrutinise the tickets of passengers, essaying towards the Calls of nature. This would mean further a prohibitive waste of time at Stations"

"The Acting Sanitary Commissioner appeals

"appears to be under the impression that Cholera-stricken passengers are allowed to travel together. This is a great mistake. No sooner does a passenger show any symptom of the disease than every other passenger in the Carriage is removed to other parts of the train and the Cholera stricken passenger alone carried in the polluted carriage. The patient is not dropped by the Railway authorities where they choose, but put down at the nearest large station where there is a hospital. The polluted carriage is then subjected to a process of disinfection. I pointed out a few years ago that no process of disinfection practicable for a carriage would satisfy theoretical requirements, Still the Carriage is well scrubbed and washed with an antiseptic fluid, and then fumigated (closed) with sulphur."

"It is my belief that in 99% of cases of Cholera shewing itself in passengers, the disease manifests itself only after the journey has commenced, the patient being free from the disease at the time of purchasing his ticket. For a person with the actual disease dominant on him to pass the ticket Collector's gate, and walk or be carried up the platform of the station and put into a Carriage, without being detected by the railway servants, or being objected to by other passengers, is well nigh an impossibility"

"I may here say with reference to the Acting Sanitary Commissioner's proposal to have a reserved ambulance carriage that the present practice obtaining on this railway of removing healthy passengers from a Carriage contaminated by a Cholera patient and allowing the patient to travel

"travel in it alone is preferable."

"But Medical necessaries may be carried by the Chief Guard in his van at Festival times"

"Similarly I do not see good reason for a Medical Subordinate to travel as proposed by the Acting Sanitary Commissioner in the district of occurrence of the festival. Such pilgrims as come away from an infected area (themselves being poisoned) usually manifest the disease only after a good distance is travelled - 50 miles and upwards. and if, as is proposed, the District authorities should inform the Railway authorities at what point along the line in the district Cholera Stricken patient are likely to alight - the reason for travelling Subordinates is still less evident.

"I do not think anything more can be done than is now done in the transport of large numbers of pilgrims. Perhaps for ethical reasons, if for nothing else, Circular orders may be issued as to prevention of overcrowding of trains. But all over the world occasions continually arise when it is necessary to carry a passenger somehow and to crowd into a Compartment nearly twice the number it is meant to carry. Mere overcrowding however, offensive one's sense of Comfort and decency, will not produce Cholera." ——

The Traffic Manager writes:—

"The measures taken by this Department for dealing with the Sanitation of passengers going to, and returning from, Tiruvannamalai last December have been explained in my reports to you dated 22nd December 1894 and 13th

"13th February 1875 respectively".

"It will be seen therefrom that in every "instance we followed the rules laid down as far "as it lay in our power, and I fail to see anything "in the observations of the Acting Sanitary "Commissioner which go to prove neglect on the "part of the Railway authorities in respect of "the cases brought to notice."

"As Mr. Birch was the Traffic officer "in charge at the time, I called upon him to "offer what remarks he might be desirous "of making upon the report of the Sanitary "Commissioner, and I now beg to quote from "his memorandum the following expression "of his views:—

"The bulk of the passengers who attend "this festival and Cattle fair come from "adjacent places, a large majority being "residents of places within 100 miles. I "call attention to this as the Acting Sani "-tary Commissioner's remarks imply "otherwise. A continuous stream of "persons walk into, and away, from "Tiruvannamalay during several days "of the Fair, many of them bringing or removing "cattle. The unchecked spread of disease "by these persons is not touched upon by "the Sanitary Commissioner. The disease "was certainly not conveyed there by "our passengers since its prevalence at a "village only 7 miles distant was officially "notified by the District Magistrate before "the Festival commenced. x x x x.

"So far as could be known no "person suffering with choleraic symptoms "was permitted to get into the trains but

24

"it may reasonably be supposed that
"premonitary symptoms passed unnoted
"in such large Crowds".

"No cases were detected either in trains
"or at Stations until the Festival was
"over and the rush to leave the place
"commenced".

"The Station Staff, largely aided
"by auxiliaries, and under personal
"superintendence of the District Officer
"assisted by a Contingent of the Reserve
"Police, moved day and night amongst
"the returning passengers, and several
"suspicious cases were removed from
"the premises to the local hospital".

"I may say that our duties in
regard to passengers suffering from Contagious
or infectious diseases are very simple. If any
case is discovered in the train the Carriage
in which the person is travelling is cleared
of other passengers and the patient is taken
out at the nearest station where medical aid
can be rendered. The vehicle is then detached
and disinfected."

"I admit there is at times some
difficulty in detecting these cases, especially
if the sick person is accompanied by his
family or friends who may be averse to the
interference of the authorities, being wishful
to take if possible, the patient to his house."

"As a rule passengers alighting at their
destination pass away immediately from the
Company's premises and we have nothing
more to do with them. They then become
subject to the care of the town or district
authorities."

"I understand, however, that at the
"festival we are referring to, the people had no
"regular Camping grounds, and squatted, without
"sanitary provisions, in the open grounds about
"the town."

"That amongst a Concourse of over 100,000
"people with such conditions prevailing, it is
"not to be wondered at, that sickness broke
"out".

"If the Acting Sanitary Commissioner
"would direct attention to the necessities of the
"people during their stay at the festival, much
"good would result. That is the time and
"place for adopting preventive measures."

"With regards to returning passengers
"no doubt many of them have to wait some
"hours before they can be entrained. On three
"closing days of the festival we despatched
"no fewer than 25,000 people which fact will
"convey some idea of the stress of work put
"upon the traffic staff."

"If the people themselves, when sickness
"has declared itself amongst them, would
"call attention to their cases the evil might
"be better combated, but there is, as before
"stated, the desire to hide the fact in order
"to avoid detention and to get home."

"I come now to the suggestions put forward
"by the Acting Sanitary Commissioner, who in
"para 4 of his report, recommends the attachment
"of a latrine carriage to each train carrying
"over 100 pilgrims."

"I do not see the necessity for this."

"These passengers do not travel great
"distances on our line. I would venture the
"remark that the average time they are in
"the

"the train is not more than 6 hours."

"An healthy person would be able to
contain himself during this time and any one having
sudden motions could use the latrines at Stations
passed enroute."

"The instances of Cholera affected persons
in trains are, fortunately, few in our experience
and the provisions now in force for dealing with
them have so far proved satisfactory."

"What would be the result if a latrine
carriage were provided?"

"I will preface my answer to this question
by stating that people generally attend these fests
in village or family groups 5 or 10 or more together
and the most intelligent person of the party transacts
business, buys tickets, &c. If, therefore, one of the
party required to go to the latrine carriage,
which would be I presume, in the rear of the
train, he would, in all probability, have his
friends accompanying him thither, fearing
to lose one another. In such an event the
confusion and the risk of accident would
be great when handling a full train of
many hundred persons."

"The Station latrines are always
available, and Sanitary precautions
adopted, particularly at times of festival
traffic, as pointed out by the Superintending
Physician, with whose remarks on this part of
the subject I thoroughly agree."

"With regard to para 5 of the Acting
Sanitary Commissioner's report as to a carriage
reserved and fitted solely for ambulance purpose
being attached to each train carrying over 200
pilgrims, I also think this unnecessary. If
we had this carriage and a latrine carriage
with

with an Apothecary travelling in the former as suggested
in para 6 of the Acting Sanitary Commissioner's report
on each train carrying over 200 passengers (only
required at festival times) we should have to increase
our rolling Stock and Medical staff. It seems
to me the difficulty might be met in a simpler
and less expensive manner by halting Special
trains carrying pilgrims at certain intervals or
at principal stations, for 30 minutes during which
time the Company's Apothecaries could carry on a
cursory examination of the passengers and the
passengers themselves be able to visit the latrines,
or what would be better, some grounds near by,
with trenches ready made, set apart for their use.

"It might also be considered advisable
to have some bottles of Cholera Mixture available
in the Chief Guard's van, which the guard could
give out in prescribed doses when necessary,
in the initial stage of a Choleraic attack, this
might have some beneficial effect."

"In Conclusion, I beg to assure you that
the subject is one which will continue to receive
my careful attention."——

With reference to the foregoing I am
of opinion that the procedure adopted by the
Railway Company is in the right direction,
and on the most practical lines possible, under
the circumstances only a general supervision
of such crowds as frequent the Railway
premises and trains at festival times can be
attained, and to attempt anything more
would involve not only so serious an
interference with the travelling public as to
result in their avoiding the Railway, but
would entail a very considerable increase in the
Company's working Expenses in the matter of
Rolling

Rolling Stock and Staff, without adequate result.

I believe that a Latrine Carriage attached to a train would in many ways be more harmful than its absence, and an ambulance Carriage would certainly scare many pilgrims into the most desperate straits before they would submit to being incarcerated in such a vehicle.

I think that during Festivals more might be done, and with greater advantage on the lines on which the Railway administration, now works, if the Company's Superintending Physician, and the Government Medical Officers in charge of the respective Districts traversed by the line of Railway, put themselves before hand in communication and conjointly agreed on the measures that could best be taken with the staff and materials at their command to combat the epidemics and the insanitary influences at work, or expected.

I have the honor to be,
Sir,
Your most obedient Servant

J. H. Le Mesurier
for Ag: Agent.

GHA

1 3760 5
A 797 30.8.95

No. 590 R. dated 20.9.95.

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

A

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Read Report from the Sanitary Commissioner of Madras, --

No. 890 dated 3rd May 1895.

Letter from the Agent and Manager, Madras Railway, No-1628 dated 11th July 1895, with enclosure

Letter from the Agent, South Indian Railway, No. 797 dated 30th August 1895.

Order thereon, No. 590 R dated 20. 9. 95.

The Sanitary Commissioner -

in the report above quoted enters a -- strong protest on the pilgrim traffic of the South Indian Railway as regards Overcrowding

Failure to detect and treat pilgrims - suffering from Cholera.

and suggests need of Latrine carriages and Ambulance carriages.

2. Regarding the first complaint it appears to His Excellency the Governor - in Council that the reports reveal the great insufficiency of the rolling -- stock and desires the attention of the Railway Administration be drawn to this

It

It also appears desirable that pending the construction of more carriages, arrangements should be made to obtain by hire or otherwise third class carriages from the Southern Mahratta Railway -- during times of much traffic.

3. Certain proposals are before the Government of India to allow the use of Covered Wooden Wagons in emergencies-- but this should not delay the provision of third class carriages above alluded to.

4. ~~The accusation of failure to detect and segregate pilgrims suffering from cholera~~ does not appear to be borne - out by the reports, but it seems desirable to make a trial of attaching - one ambulance carriage or to reserve 2 compartments (one for each sex) on a - pilgrim train and to provide the guard with ~~prescribed remedies.~~ the necessary remedies -

That failure to detect and segregate pilgrims suffering from cholera, has occurred

5. This system would supersede the -- present one of removing all the passengers from a carriage in which there is a detected patient and which system is tantamount to converting ~~turning~~ that carriage into an ambulance carriage besides causing great inconvenience ~~or~~ and discomfort to the healthy passengers.

6. As regards the supply of latrine - carriages the evidence goes to show that it is practically impossible, and that the best way to deal with the -- wants of passengers in pilgrim trains- is to stop the train between stations at convenient places where trenches -- should

should be dug and screens erected and sweepers provided.

7. In view of the profit directly derived by the Railway from this traffic- it appears to His Excellency the Governor in Council that except in cases - of wealthy Municipalities, it should- devolve on the Railway Company to provide both the latrine accommodation - referred to above ~~noticed~~ as well as temporary -- cholera camps for the treatment of -- patients on removal from the train at places where no regular hospitals -- exist.

To Mr. Cong. Sup. for Rly Sanitary Commissioner Local Govt. Dept.

Af.

No. 590. R. dated 20.9.95